

AD-A174 694

DEPARTMENT OF DEFENSE IN-HOUSE RDT&E ACTIVITIES



30 OCTOBER 1984

Management Analysis Report . . .

Department of the Army

Department of the Navy

Department of the Air Force

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DEPARTMENT OF DEFENSE IN-HOUSE RDTE ACTIVITIES

30 October 1984

Prepared for:

US ARMY MATERIEL COMMAND
5001 Eisenhower Avenue
Alexandria, Virginia 22333

FOREWORD

THIS REPORT WAS PREPARED FOR THE US ARMY MATERIEL COMMAND AT THE DIRECTION OF THE DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT, AND ACQUISITION. THIS EDITION IS THE SEVENTEENTH OF A SERIES THAT WAS INITIATED IN 1966.

EACH IN-HOUSE RDTE ACTIVITY OF THE DEPARTMENT OF DEFENSE IS DESCRIBED ON ONE PAGE IN THIS COMPILATION. THE DATA FOR 1984 ARE SUMMARIZED IN TABLES PRECEDING THE MAIN TEXT AND CHARTS AND TABLES ARE PROVIDED FOR EACH SERVICE SHOWING ORGANIZATIONAL RELATIONSHIPS AND COMMAND CHAIN.

ALL CURRENT DOD RDTE ACTIVITIES WHICH MEET THE REPORT REQUIREMENT OF HAVING AT LEAST 25 PER CENT OF THEIR BUDGET IN RDTE FUNDS ARE LISTED IN THE CONTENTS ALPHABETICALLY WITHIN EACH DEPARTMENT. SOME FACILITIES WHICH DO NOT MEET THE REQUIREMENT PREVIOUSLY NOTED ARE ALSO LISTED BY SPECIAL REQUEST. ORGANIZATIONAL CHANGES DURING FY 1984 APPEAR IN APPENDIX I.

DOD INSTRUCTION 7700.9, WHICH HAS BEEN THE BASIS FOR THIS REPORT SINCE ITS INCEPTION, HAS BEEN REPLACED BY A TRI-SERVICE REGULATION, AR 70-63 NAVCOMPTIST 7044.5E, AFR 80-26, DNA 7700.9A, ENTITLED DOD IN-HOUSE RDTE ANNUAL ACTIVITIES REPORT, 1 SEPTEMBER 1981. APPENDIX II CONTAINS MANY OF THE DEFINITIONS USED IN THIS REPORT AND ARE PROVIDED AS AN ADDITIONAL AID IN USE OF THE REPORT. APPENDIX III LISTS SELECTED ABBREVIATIONS AND ACRONYMS. APPENDIX IV LISTS SELECTED KEY WORDS WITH PAGE REFERENCES.

EVERY EFFORT HAS BEEN MADE TO PROVIDE ACCURATE INFORMATION, PARTICULARLY FISCAL AND PERSONNEL DATA. ALL NUMBERS AND STATEMENTS HAVE BEEN THOROUGHLY EXAMINED AND, IN ALMOST ALL CASES, REVIEWED WITH THE SUBMITTING AGENCY TO INSURE CORRECTNESS AND CLARITY.

ALTHOUGH CONSIDERABLY MORE DATA IS ACCUMULATED THAN PUBLISHED IN THIS REPORT, ALL DATA IS USED BY NUMEROUS ORGANIZATIONS SUCH AS THE DEPARTMENT OF DEFENSE, OFFICE OF TECHNOLOGY ASSESSMENT, ARMY AUDIT AGENCY, VARIOUS COMMITTEES OF THE CONGRESS, AND THE GENERAL ACCOUNTING OFFICE AMONG OTHERS. AVAILABILITY OF THIS DATA ALSO ALLOWS TIMELY AND ACCURATE INFORMATION TO BE PROVIDED WITHOUT CONTINUAL RECOURSE TO THE APPROPRIATE FIELD ACTIVITY.

NO MAJOR CHANGES HAVE BEEN MADE IN THIS YEAR'S REPORT VIS-A-VIS LAST YEAR'S.

IT IS DESIRED THAT THIS PUBLICATION BE GIVEN WIDESPREAD DISTRIBUTION IN THE DOD LABORATORIES AS AN INTERNAL MANAGEMENT DOCUMENT AT THE DIRECTOR AND COMMANDING OFFICER LEVEL AS WELL AS AT THE BENCH LEVEL IN ORDER TO ALLOW PERSONNEL AN OPPORTUNITY TO FAMILIARIZE THEMSELVES WITH THE FUNCTIONAL CAPABILITIES OF OTHER DOD LABORATORIES. IT IS HOPED THAT BY THIS MEANS LABORATORY SCIENTISTS AND ENGINEERS WILL BE ENCOURAGED TO COMMUNICATE WITH EACH OTHER ON COMMON PROBLEMS OF INTEREST TO THEIR SERVICE LABORATORIES AS WELL AS TO COMMUNICATE WITH LABORATORIES OF THE OTHER SERVICES.

ADDITIONAL COPIES OF THIS DOCUMENT MAY BE OBTAINED BY WRITING THE DEFENSE TECHNICAL INFORMATION CENTER, BUILDING 5, CAMERON STATION, ALEXANDRIA, VIRGINIA 22314.

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Accession No. 100-100000	
Title: Command	
200-100000	
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Classification	
Distribution/	
Availability	
Dist	Spec
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SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE RDT&E FACILITIES

PROGRAM DATA FOR FY 1984

	(MILLIONS)
TOTAL ANNUAL PROGRAM	14189.297
TOTAL INHOUSE PROGRAM	5635.054
TOTAL RDT&E PROGRAM	8705.959
TOTAL INHOUSE RDT&E	3530.021
TOTAL ANNUAL OPERATING COST	1467.251

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	26940	642	6545
CIVILIAN	69640	4135	31664
TOTAL	96580	4777	38209

PHYSICAL FACILITIES (END OF FY 1984)

ACRES	6341391
-------	---------

SPACE (THOUSANDS OF SQ FT)

LABORATORY	29605.437
ADMINISTRATIVE	9917.084
OTHER	57409.016
TOTAL	96931.537

COST (MILLIONS)

REAL PROPERTY	5137.726
EQUIPMENT	5391.220
TOTAL	10528.946

TABLE 1. ARMY RDT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1984

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	INHOUSE	TOTAL	INHOUSE	TOTAL	MIL	CIV	TOTAL	PHD	MIL	PHD	CIV	PROF	PROF
	INHOUSE	RDT&E	RDT&E	RDT&E	MIL	CIV	CIV	MIL	MIL	CIV	MIL	CIV	MIL	CIV
AEROMEDICAL RESEARCH LABORATORY	8.759	8.496	6.527	6.264	72	70	16	9	29	20				
AIR DEFENSE ARTILLERY BOARD	10.012	8.208	5.084	3.995	98	94	0	1	24	15				
AIRBORNE & SPECIAL OPERATIONS TEST BOARD	7.564	7.214	2.717	2.367	99	43	0	0	16	5				
ARMOR AND ENGINEER BOARD	12.593	12.593	7.474	7.474	197	100	0	1	65	23				
ARMY RESEARCH OFFICE	95.167	0.106	95.057	0.000	2	134	0	36	2	36				
ATMOSPHERIC SCIENCES LABORATORY	31.540	18.718	29.725	16.903	76	405	1	156	1	156				
AVIATION BOARD	7.026	7.026	3.982	3.982	122	46	0	2	21	18				
AVIATION DEVELOPMENT TEST ACTIVITY	23.943	23.943	11.724	11.724	194	93	0	0	36	26				
AVIATION ENGINEERING FLIGHT ACTIVITY	10.367	9.963	7.313	6.909	65	100	0	0	30	46				
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	103.405	31.161	99.544	28.592	24	369	3	29	19	253				
AVIONICS R & D ACTIVITY	31.837	12.632	20.679	5.723	17	267	0	7	10	149				
BALLISTIC RESEARCH LABORATORY	79.677	62.395	61.026	47.431	25	743	1	107	9	435				
BELVOIR R & D CENTER	275.673	55.923	123.801	37.770	66	1145	0	27	53	400				
CHEMICAL R&D CENTER	158.941	76.174	126.116	55.937	101	994	6	77	45	644				
COLD REGIONS R&E LABORATORY	23.195	16.482	12.379	7.427	15	279	0	33	5	130				
COLD REGIONS TEST CENTER	11.945	11.893	6.501	6.501	263	22	0	0	36	14				
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	77.193	11.130	23.352	5.499	11	168	0	3	7	99				
COMBAT SYSTEMS TEST ACTIVITY	115.045	106.518	61.515	56.813	182	802	6	6	38	333				
COMMUNICATIONS - ELECTRONICS BOARD	5.090	5.090	2.326	2.326	55	34	0	0	51	12				
COMMUNICATIONS - ELECTRONICS R & D CENTER	141.591	38.287	124.260	30.890	36	436	0	17	21	337				
CONSTRUCTION ENGINEERING RESEARCH LAB	30.573	14.004	25.123	12.537	5	213	0	28	6	140				
DUGWAY PROVING GROUND	59.102	41.140	30.792	21.230	148	539	2	12	21	75				
ELECTRONIC WARFARE LABORATORY	55.749	36.938	39.604	22.970	605	212	0	0	18	81				
ELECTRONICS TECHNOLOGY AND DEVICES LAB	245.227	38.745	126.652	28.957	86	413	0	8	61	362				
ENGINEER TOPOGRAPHIC LABORATORIES	80.736	31.531	76.536	28.023	1	291	0	36	1	177				
ENGINEER WATERWAYS EXPERIMENT STATION	54.164	14.847	50.909	12.377	14	291	1	17	7	198				
FIELD ARTILLERY BOARD	97.735	81.138	37.409	31.594	19	1507	0	104	19	611				
FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB	9.020	9.020	3.269	3.269	123	50	0	0	24	6				
HARRY DIAMOND LABORATORIES	117.217	87.966	44.850	26.200	18	661	0	25	12	435				
HUMAN ENGINEERING LABORATORY	180.856	85.988	80.496	48.216	6	1179	1	46	5	368				
INFANTRY BOARD	19.233	12.186	17.591	11.051	35	176	1	17	14	119				
INSTITUTE OF DENTAL RESEARCH	6.221	6.221	2.874	2.874	109	76	1	0	3	7				
INSTITUTE OF SURGICAL RESEARCH	6.815	3.993	4.854	2.128	60	20	17	2	33	4				
INTELLIGENCE & SECURITY BOARD	8.204	7.794	3.549	3.139	156	72	14	4	50	30				
KUWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	7.042	2.040	5.021	2.008	86	31	0	2	63	14				
LARGE CALIBER WEAPONS SYSTEMS LAB	168.721	8.072	162.336	6.257	44	105	0	1	26	60				
LETTERMAN ARMY INSTITUTE OF RESEARCH	207.490	162.877	107.790	64.477	27	1734	0	80	20	1089				
MATERIALS AND MECHANICS RESEARCH CENTER	16.984	13.231	12.543	9.086	155	99	30	16	97	54				
MATERIEL SYSTEMS ANALYSIS ACTIVITY	41.895	24.344	36.362	20.112	16	641	2	68	14	231				
MEDICAL BIOENGINEERING R&D LABORATORY	31.529	22.914	25.137	18.010	31	450	0	19	15	337				
MEDICAL R & D COMMAND	28.668	7.610	26.614	6.273	30	94	2	16	17	43				
MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE	11.274	9.774	7.993	6.493	58	93	30	2	55	3				
MEDICAL RSCH INST OF INFECTIOUS DISEASES	42.316	18.762	39.386	15.895	85	155	37	24	50	75				
MISSILE LABORATORY	40.877	26.691	33.853	19.667	299	194	52	39	90	88				
NATICK R & D CENTER	260.962	133.691	174.685	78.000	45	1191	0	67	22	759				
NIGHT VISION & ELECTRO OPTICS LABORATORY	102.536	53.585	51.712	35.779	104	1148	2	70	41	501				
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	169.608	33.543	98.461	27.567	37	487	1	38	31	214				
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	50.945	23.340	49.137	21.552	31	341	1	151	28	248				
	7.709	6.993	6.024	5.308	74	84	6	24	39	69				

SIGNALS WARFARE LABORATORY
TANK-AUTO COMMAND R & D CENTER
TROPIC TEST CENTER
WALTER REED ARMY INSTITUTE OF RESEARCH
WHITE SANDS MISSILE RANGE
YUMA PROVING GROUND

316.690	16.964	49.621	10.188	51	180	0	5	51	180
236.815	43.801	216.925	39.107	26	461	0	14	16	246
5.740	5.600	4.045	3.941	71	60	0	2	13	12
88.037	52.582	72.700	37.386	451	551	62	102	257	279
282.696	191.498	234.458	155.812	895	2742	5	65	336	1097
70.042	55.024	47.197	33.013	429	737	0	2	38	158
4390.071	1908.389	2837.610	1214.003	6150	23622	300	1493	2111	11521
TOTALS									

TABLE 2. ARMY RDT&E FACILITIES DATA, FY 1984

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AEROMEDICAL RESEARCH LABORATORY	53	89.283	20.000	18.000	6.351	12.775
AIR DEFENSE ARTILLERY BOARD	0	11.220	37.090	35.357	1.370	14.871
AIRBORNE & SPECIAL OPERATIONS TEST BOARD	27	3.978	40.795	40.182	0.000	8.953
ARMOR AND ENGINEER BOARD	2	63.365	50.454	88.069	1.455	14.850
ARMY RESEARCH OFFICE	6	0.000	29.400	0.000	0.000	0.723
ATMOSPHERIC SCIENCES LABORATORY	15	51.541	26.663	67.658	20.213	22.878
AVIATION BOARD	0	0.000	18.826	20.470	0.000	1.591
AVIATION DEVELOPMENT TEST ACTIVITY	1196	0.000	43.737	132.172	1.756	26.895
AVIATION ENGINEERING FLIGHT ACTIVITY	19	9.200	1.600	124.800	4.042	29.363
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	127	88.848	58.673	16.370	2.272	19.029
AVIONICS R & D ACTIVITY	2	52.450	13.665	19.100	0.000	11.080
BALLISTIC RESEARCH LABORATORY	1920	374.397	117.830	53.044	19.085	52.761
BELVOIR R & D CENTER	1052	350.974	186.816	267.263	19.200	38.132
CHEMICAL R&D CENTER	3471	434.009	211.091	647.417	23.987	44.290
COLD REGIONS R&E LABORATORY	211	108.787	30.027	133.024	9.084	10.594
COLD REGIONS TEST CENTER	647155	0.000	18.205	236.033	10.336	9.801
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	35	81.242	12.633	0.000	0.697	5.091
COMBAT SYSTEMS TEST ACTIVITY	22865	720.999	4.351	248.742	22.176	44.865
COMMUNICATIONS - ELECTRONICS BOARD	7	0.000	20.950	0.498	0.215	1.660
CONSTRUCTIONS - ELECTRONICS R & D CENTER	0	39.506	98.975	6.485	0.000	23.150
CONSTRUCTION ENGINEERING RESEARCH LAB	31	45.876	33.149	19.420	10.000	6.858
DUGWAY PROVING GROUND	840911	104.875	201.133	1643.266	74.999	32.937
ELECTRONIC WARFARE LABORATORY	67000	0.150	38.597	232.153	8.100	31.300
ELECTRONICS TECHNOLOGY AND DEVICES LAB	6	210.936	43.877	109.138	9.500	59.260
ENGINEER TOPOGRAPHIC LABORATORIES	0	81.909	5.537	4.467	0.000	17.000
ENGINEER WATERWAYS EXPERIMENT STATION	33	90.722	7.000	13.300	6.000	12.000
FIELD ARTILLERY BOARD	3246	1743.808	353.645	176.809	41.186	48.586
FIRE CONTROL & SMALL CAL. MPNS SYSTS LAB	0	13.790	38.080	16.939	0.000	3.627
HARRY DIAHARD LABORATORIES	6	167.247	103.974	4.576	9.768	28.985
HUMAN ENGINEERING LABORATORY	2316	507.829	112.019	121.840	53.921	50.064
INFANTRY BOARD	72	111.524	7.056	21.400	10.826	8.507
INSTITUTE OF DENTAL RESEARCH	1	0.000	32.203	32.885	3.000	1.474
INSTITUTE OF SURGICAL RESEARCH	4	9.852	5.696	14.153	2.548	3.286
INTELLIGENCE & SECURITY BOARD	1	26.424	1.800	22.400	4.396	4.543
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	10	4.000	6.627	21.667	0.616	6.205
LARGE CALIBER WEAPONS SYSTEMS LAB	1361	0.000	209.608	2423.848	237.500	245.980
LETTERMAN ARMY INSTITUTE OF RESEARCH	15	306.072	265.224	61.317	18.441	28.363
MATERIALS AND MECHANICS RESEARCH CENTER	9	119.204	56.941	112.174	43.984	12.984
MATERIEL SYSTEMS ANALYSIS ACTIVITY	37	352.000	88.261	48.375	15.554	24.466
MEDICAL BIOENGINEERING R&D LABORATORY	4	8.140	100.276	1.715	2.070	1.301
MEDICAL R & D CENTER	5	45.193	27.300	36.108	3.557	4.379
MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE	0	0.000	38.757	0.000	0.632	0.997
MEDICAL RSCH INST OF INFECTIOUS DISEASES	31	36.246	18.945	99.029	9.384	13.234
MISSILE LABORATORY	215	104.136	20.618	197.909	18.943	12.919
NATICK R & D CENTER	11000	664.000	241.000	200.000	129.616	112.000
NIGHT VISION & ELECTRO OPTICS LABORATORY	24	502.631	55.340	277.270	28.741	20.600
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	38	180.639	27.186	20.000	32.000	37.247
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	0	53.155	14.000	6.200	0.705	0.842
	4	65.177	14.037	28.647	4.084	7.664

SIGNALS WARFARE LABORATORY
TANK-AUTO COMMAND R & D CENTER
TROPIC TEST CENTER
WALTER REED ARMY INSTITUTE OF RESEARCH
WHITE SANDS MISSILE RANGE
YUMA PROVING GROUND

VINT HILL, VA.
WARREN, MI.
FT. CLAYTON, C.Z.
WASHINGTON, D.C.
WHITE SANDS, N.M.
YUMA, AZ

6	4,100	32,100	7,200	3,580	5,916
11	257,125	33,284	111,777	215,221	117,445
2619	18,000	35,925	75,273	0,879	5,709
203	386,274	63,600	0,000	10,080	23,260
1758224	52,945	583,920	4448,663	234,216	236,210
838314	1,144	100,268	1489,687	60,453	109,876
4203920	8754,922	4058,764	14254,289	1446,789	1729,376

TOTALS

TABLE 3. NAVY RDT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1984

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	TOTAL RDT&E	INHOUSE RDT&E	TOTAL RDT&E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV				
AEROSPACE MEDICAL RESEARCH LABORATORY	4.178	4.088	3.371	3.461	37	56	10	11	22	24				
AIR DEVELOPMENT CENTER	352.592	139.377	90.256	194.726	252	2436	6	43	73	1357				
AIR PROPULSION CENTER	43.442	35.245	33.160	41.331	8	646	0	0	7	196				
AIR TEST CENTER	281.293	197.539	78.203	128.793	1486	2111	5	6	294	532				
ATLANTIC FLEET WEAPONS TRAINING FACILITY	29.684	5.849	0.400	0.400	87	34	0	0	26	24				
BIODYNAMICS LABORATORY	4.708	3.756	3.047	3.847	34	53	3	2	10	19				
BIOSCIENCES LABORATORY	3.112	3.112	2.830	2.830	9	4	3	0	6	0				
CIVIL ENGINEERING LABORATORY	39.164	21.899	17.780	31.211	16	362	0	32	8	211				
CLOTHING & TEXTILE RESEARCH FACILITY	4.787	3.788	2.117	3.116	1	56	0	1	1	37				
COASTAL SYSTEMS CENTER	101.028	49.412	31.424	59.351	122	902	0	32	18	450				
DAVID W. TAYLOR NAVAL SHIP R&D CENTER	258.944	133.998	98.755	187.749	74	2550	2	115	19	1213				
DENTAL RESEARCH INSTITUTE.	1.812	1.671	0.924	1.065	31	15	7	4	11	15				
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	6.535	3.055	2.323	5.292	14	34	2	8	6	28				
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	27.079	21.838	8.268	11.137	41	164	1	1	6	34				
HEALTH RESEARCH CENTER	4.161	3.489	2.505	3.177	31	62	11	11	29	19				
MEDICAL RESEARCH INSTITUTE	24.075	22.302	15.974	17.747	243	197	46	37	74	97				
MEDICAL RESEARCH UNIT NO.2	3.728	3.728	2.739	2.739	25	48	11	1	11	8				
MEDICAL RESEARCH UNIT 3	5.315	5.315	4.289	4.289	28	205	12	18	14	69				
OCEAN R & D ACTIVITY	42.844	18.075	16.230	40.830	13	312	0	77	11	209				
OCEAN SYSTEMS CENTER	443.039	206.084	135.720	272.700	270	2608	2	184	53	1404				
OFFICE OF NAVAL RESEARCH	767.063	24.978	22.725	621.131	41	415	5	89	30	117				
ORDNANCE MISSILE TEST FACILITY	13.185	5.164	2.850	5.275	87	57	0	0	5	7				
PACIFIC MISSILE TEST CENTER	536.462	296.319	130.461	190.170	1052	3787	11	150	396	1156				
PERSONNEL RESEARCH & DEVELOPMENT CENTER	29.047	17.011	10.997	18.453	24	296	3	94	19	236				
RESEARCH LABORATORY	377.794	244.120	218.520	338.336	146	3219	2	679	75	1515				
SUBMARINE MEDICAL RESEARCH LABORATORY	3.151	3.151	2.228	2.228	36	55	9	16	13	31				
SURFACE WEAPONS CENTER	623.022	245.162	139.476	331.206	104	5173	0	242	33	2389				
UNDERSEA RANGES DEPARTMENT	53.635	11.541	9.499	37.399	25	24	0	2	18	13				
UNDERWATER SYSTEMS CENTER	440.093	177.713	94.446	175.799	84	3002	0	83	73	1743				
WEAPONS CENTER	514.564	251.590	149.388	280.809	570	4152	0	101	35	1718				
WEAPONS EVALUATION FACILITY	13.733	11.351	3.303	3.898	131	124	0	0	26	51				
TOTALS	5053.269	2171.720	1333.858	3020.485	5122	33159	151	2039	1422	14922				

TABLE 4. NAVY RDT&E FACILITIES DATA, FY 1984

INSTALLATION	SPACE AND PROPERTY			COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY EQUIPMENT
AEROSPACE MEDICAL RESEARCH LABORATORY	8	111.293	6.796	8.052	4.320 1.022
AIR DEVELOPMENT CENTER	840	852.000	83.000	654.000	38.145 69.347
AIR PROPULSION CENTER	68	488.390	27.962	92.816	52.190 11.135
AIR TEST CENTER	7156	25.426	425.407	4681.507	144.577 99.735
ATLANTIC FLEET WEAPONS TRAINING FACILITY	3690	0.000	14.957	182.152	13.810 133.000
BIODYNAMICS LABORATORY	1	35.702	24.452	0.000	0.070 0.279
BIOSCIENCES LABORATORY	5	77.625	8.731	34.646	1.000 5.525
CIVIL ENGINEERING LABORATORY	32	112.965	7.746	16.493	7.584 5.304
CLOTHING & TEXTILE RESEARCH FACILITY	1	9.160	10.000	3.600	0.865 0.974
COASTAL SYSTEMS CENTER	648	343.480	42.967	369.393	49.780 25.763
DAVID W. TAYLOR NAVAL SHIP R&D CENTER	325	1705.538	98.055	296.515	74.002 88.404
DENTAL RESEARCH INSTITUTE.	1	21.264	6.001	9.318	0.000 1.032
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	5.446	14.040	5.098	0.000 1.665
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	1172	71.578	22.176	90.643	5.987 5.201
HEALTH RESEARCH CENTER	1	19.052	7.159	0.000	0.147 1.584
MEDICAL RESEARCH INSTITUTE	4	159.933	11.720	47.210	7.504 14.264
MEDICAL RESEARCH UNIT NO.2	1	15.439	6.654	2.400	0.130 0.905
MEDICAL RESEARCH UNIT 3	5	89.472	8.962	61.072	9.054 1.184
OCEAN R & D ACTIVITY	5	81.500	46.500	85.200	17.203 13.536
OCEAN SYSTEMS CENTER	2719	1270.241	196.533	218.031	54.388 57.802
OFFICE OF NAVAL RESEARCH	0	0.000	77.852	12.565	0.000 0.000
ORDNANCE MISSILE TEST FACILITY	95	9.364	38.358	166.886	6.121 4.072
PACIFIC MISSILE TEST CENTER	27088	1013.333	373.722	3493.199	173.693 151.640
PERSONNEL RESEARCH & DEVELOPMENT CENTER	3	65.792	18.417	0.000	0.670 8.723
RESEARCH LABORATORY	1072	2348.281	192.677	495.681	101.306 136.302
SUBMARINE MEDICAL RESEARCH LABORATORY	1	40.514	14.099	0.000	1.315 1.956
SURFACE WEAPONS CENTER	5052	1680.942	205.005	1240.175	107.500 163.496
UNDERSEA RANGES DEPARTMENT	1042	83.442	12.718	347.714	27.226 19.433
UNDERWATER SYSTEMS CENTER	363	1101.377	232.885	571.430	57.331 73.804
WEAPONS CENTER	1127029	1800.708	229.521	3172.325	238.920 117.512
WEAPONS EVALUATION FACILITY	7	23.000	34.000	95.000	9.600 1.677
TOTALS	1178454	13662.257	2499.072	16453.121	1206.438 1216.276

TABLE 5. AIR FORCE ROT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1984

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	TOTAL ROT&E	INHOUSE ROT&E	TOTAL ROT&E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV				
AERO PROPULSION LABORATORY	125.104	39.232		123.347	56	328	2	23	46	204				
AEROSPACE MEDICAL RESEARCH LABORATORY	41.881	10.474		32.138	10.111	137	24	32	71	87				
ARMAMENT DIVISION	1523.311	433.331		571.524	296.204	4854	5	24	626	1027				
ARMAMENT LABORATORY	79.742	44.045		70.201	35.861	175	2	16	166	233				
ARNOLD ENGINEERING DEVELOPMENT CENTER	267.703	79.846		255.061	74.308	63	1	4	69	76				
AVIONICS LABORATORY	341.228	45.162		335.682	39.616	152	5	35	122	391				
EASTERN SPACE & MISSILE CENTER	445.528	199.933		0.000	2839	1218	0	1	129	106				
ENGINEERING & SERVICES CNTR / RD	22.179	5.184		19.271	2.304	74	7	3	40	22				
FLIGHT DYNAMICS LABORATORY	136.376	54.532		130.113	48.269	173	2	33	153	426				
FLIGHT TEST CENTER	303.406	215.102		181.342	123.907	3671	2	15	201	322				
FRAK J SEILER RESEARCH LABORATORY	3.311	3.311		2.022	23	9	10	1	20	6				
GEOPHYSICS LABORATORY	85.926	34.799		79.227	31.700	126	4	98	49	284				
HUMAN RESOURCES LABORATORY	61.731	15.783		54.501	12.088	176	8	44	85	130				
MATERIALS LABORATORY	141.953	26.123		132.108	24.328	51	296	3	55	45				
OFFICE OF SCIENTIFIC RESEARCH	143.737	1.695		141.987	0.000	44	97	16	22	21				
ROCKET PROPULSION LABORATORY	49.335	18.748		44.724	14.433	175	249	1	17	66				
ROME AIR DEVELOPMENT CENTER	344.373	41.015		259.466	35.028	220	1088	3	64	122				
SCHOOL OF AEROSPACE MEDICINE	24.796	14.979		24.142	14.325	358	271	44	41	70				
WEAPONS LABORATORY	273.932	107.532		255.999	89.599	618	514	30	52	427				
WESTERN SPACE AND MISSILE CENTER	157.272	39.716		2.700	0.000	343	420	3	2	238				
4950 TEST WING	113.450	81.596		88.340	56.489	927	1045	1	0	121				
6585TH TEST GROUP	44.338	27.462		31.904	22.028	323	276	0	2	79				
TOTALS	4730.612	1539.600		2835.799	970.095	15578	12710	173	504	2966				

TABLE 6. AIR FORCE RDT&E FACILITIES DATA, FY 1984

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AERO PROPULSION LABORATORY	44	266.165	47.779	123.889	83.158	37.501
AEROSPACE MEDICAL RESEARCH LABORATORY	30	115.731	1.257	105.618	79.656	28.997
ARMAMENT DIVISION	456206	285.268	229.590	8445.858	249.192	351.955
ARTIFACT LABORATORY	0	49.766	0.000	145.079	7.468	0.000
ARNOLD ENGINEERING DEVELOPMENT CENTER	39081	817.378	306.938	969.034	404.145	67.733
AVIONICS LABORATORY	220	229.369	9.483	405.264	46.921	119.987
EASTERN SPACE & MISSILE CENTER	26177	177.723	1189.018	6576.341	413.911	0.000
ENGINEERING & SERVICES CNTR / RD	3	12.000	14.000	0.000	1.960	2.921
FLIGHT DYNAMICS LABORATORY	76	546.654	5.100	168.182	50.676	44.630
FLIGHT TEST CENTER	299084	184.691	261.070	7492.874	304.555	158.863
FRANK J SEILER RESEARCH LABORATORY	0	190.000	3.000	0.000	1.820	2.628
GEOPHYSICS LABORATORY	336	393.389	14.821	25.883	9.871	39.154
HUMAN RESOURCES LABORATORY	5	81.180	65.319	62.879	6.851	109.764
MATERIALS LABORATORY	15	188.750	117.941	54.123	23.340	66.433
OFFICE OF SCIENTIFIC RESEARCH	0	0.000	36.688	5.128	0.000	0.000
ROCKET PROPULSION LABORATORY	68345	419.046	86.848	4.780	126.300	27.425
ROME AIR DEVELOPMENT CENTER	1517	764.945	52.839	182.271	29.595	56.243
SCHOOL OF AEROSPACE MEDICINE	1309	433.578	59.078	193.122	53.153	26.898
WEAPONS LABORATORY	702	705.130	130.000	132.000	75.595	82.950
WESTERN SPACE AND MISSILE CENTER	58600	914.972	568.183	607.327	300.000	400.000
4950 TEST WING	205	0.000	132.249	780.414	14.260	748.918
6585TH TEST GROUP	7052	386.000	12.000	165.000	188.657	55.254
TOTALS	959007	7161.735	3343.201	26645.066	2471.084	2428.254

TABLE 7. DEPARTMENT OF DEFENSE R&D ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1984

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA						
	TOTAL	INHOUSE	TOTAL RDT&E	TOTAL RDT&E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV	
ARMED FORCES RADIOBIOLOGY RSCH. INSTITUTE	15.345	15.345	12.065	12.065	90	149	18	19	46	57	
TOTALS	15.345	15.345	12.065	12.065	90	149	18	19	46	57	

SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES

PROGRAM DATA FOR FY 1984

	(MILLIONS)
TOTAL ANNUAL LABORATORY PROGRAM	8483.997
TOTAL INHOUSE PROGRAM	3387.079
TOTAL RDT&E PROGRAM	5672.550
TOTAL INHOUSE RDT&E	2306.590
TOTAL ANNUAL OPERATING COST	938.868

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	7125	578	3395
CIVILIAN	48302	3670	25036
TOTAL	55427	4248	28431

PHYSICAL FACILITIES (END OF FY 1984)

ACRES	1235989
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SPACE (THOUSANDS OF SQ FT)

LABORATORY	24196.508
ADMINISTRATIVE	4554.869
OTHER	12239.853
TOTAL	40991.230

COST (MILLIONS)

REAL PROPERTY	2193.795
EQUIPMENT	2373.846
TOTAL	4567.641

TABLE 1A. ARMY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1984

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	TOTAL INHOUSE	ROT&E	INHOUSE ROT&E	TOTAL MTL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV				
AEROMEDICAL RESEARCH LABORATORY	8,759	8,496	6,527	6,264	72	70	16	9	29	20				
ATMOSPHERIC SCIENCES LABORATORY	31,540	18,718	29,725	16,903	76	405	1	32	1	156				
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	103,485	31,161	99,544	28,582	24	369	3	29	19	253				
AVIONICS R & D ACTIVITY	31,837	12,632	20,679	5,723	17	267	0	7	10	149				
BALLISTIC RESEARCH LABORATORY	79,677	62,395	61,026	47,431	25	743	1	107	9	435				
BELVOIR R & D CENTER	275,673	55,923	123,601	37,770	66	1145	0	27	53	400				
CHEMICAL R&D CENTER	158,941	76,174	126,116	55,937	101	994	6	77	45	644				
COLD REGIONS R&E LABORATORY	23,195	16,482	12,379	7,427	15	279	0	33	5	130				
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	77,193	11,130	23,352	5,499	11	168	0	3	7	99				
COMMUNICATIONS - ELECTRONICS R & D CENTER	141,591	38,287	124,260	30,690	36	436	0	17	21	337				
CONSTRUCTION ENGINEERING RESEARCH LAB	30,573	14,004	25,123	12,537	5	213	0	28	6	140				
ELECTRONIC WARFARE LABORATORY	245,227	38,745	126,652	28,957	86	413	0	8	61	362				
ELECTRONICS TECHNOLOGY AND DEVICES LAB	80,736	31,531	76,536	28,023	1	291	0	36	1	177				
ENGINEER TOPOGRAPHIC LABORATORIES	54,164	14,647	50,909	12,377	14	291	1	17	7	198				
ENGINEER WATERWAYS EXPERIMENT STATION	97,735	81,138	37,409	31,594	19	1507	0	104	19	611				
FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB	117,217	87,966	44,850	26,200	18	661	0	25	12	435				
HARRY DIAMOND LABORATORIES	180,856	85,988	80,496	48,216	6	1179	1	46	5	368				
HUMAN ENGINEERING LABORATORY	19,233	12,186	17,591	11,051	35	176	1	17	14	119				
INSTITUTE OF DENTAL RESEARCH	6,815	3,993	4,854	2,128	60	20	17	2	33	4				
INSTITUTE OF SURGICAL RESEARCH	8,204	7,794	3,549	3,139	156	72	14	4	50	30				
LARGE CALIBER WEAPONS SYSTEMS LAB	207,490	162,877	107,790	64,477	27	1734	0	80	20	1089				
LETTERMAN ARMY INSTITUTE OF RESEARCH	16,984	13,231	12,543	9,066	155	99	30	16	97	54				
MATERIALS AND MECHANICS RESEARCH CENTER	41,695	24,344	36,362	20,112	16	641	2	68	14	231				
MEDICAL BIOENGINEERING R&D LABORATORY	28,668	7,610	26,614	6,273	30	94	2	16	17	43				
MEDICAL R & D COMMAND	11,274	9,774	7,993	6,493	58	93	30	2	55	3				
MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE	42,316	18,762	39,386	15,895	85	155	37	24	50	75				
MEDICAL RSCH INST OF INFECTIOUS DISEASES	40,877	26,691	33,853	19,667	299	194	52	39	90	88				
MISSILE LABORATORY	260,962	133,691	174,685	78,000	45	1191	0	67	22	759				
NATICK R & D CENTER	102,536	53,585	51,712	35,779	104	1148	2	70	41	501				
NIGHT VISION & ELECTRO OPTICS LABORATORY	169,608	33,543	98,461	27,567	37	487	1	38	31	214				
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	50,945	23,340	49,137	21,552	31	341	1	151	28	248				
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	7,709	6,993	6,024	5,308	74	84	6	24	39	69				
SIGNALS WARFARE LABORATORY	316,690	16,964	49,621	10,188	51	180	0	5	51	180				
TANK-AUTO COMMAND R & D CENTER	236,815	43,801	216,925	38,107	26	461	0	14	16	246				
WALTER REED ARMY INSTITUTE OF RESEARCH	88,037	52,582	72,700	37,366	451	551	62	102	257	279				
TOTALS	3395,457	1337,378	2079,184	842,528	2332	17152	286	1344	1235	9146				

TABLE 2A. ARMY R&D FACILITIES DATA, FY 1984

INSTALLATION	SPACE AND PROPERTY			COST (MILLIONS \$)	
	ACRES	LABORATORY SPACE (THOUSANDS OF SQUARE FEET)	ADMIN SPACE (THOUSANDS OF SQUARE FEET)	OTHER SPACE (THOUSANDS OF SQUARE FEET)	REAL PROPERTY EQUIPMENT
AEROMEDICAL RESEARCH LABORATORY	53	89.283	20.000	18.000	6.351 12.775
ATMOSPHERIC SCIENCES LABORATORY	15	51.541	26.663	67.658	20.213 22.878
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	127	88.848	58.673	16.370	2.272 19.029
AVIONICS R & D ACTIVITY	2	52.450	13.665	19.100	0.000 11.080
BALLISTIC RESEARCH LABORATORY	1920	374.397	117.830	53.044	19.085 52.761
BELVOIR R & D CENTER	1052	350.974	186.816	267.263	19.200 38.132
CHEMICAL R&D LABORATORY	3471	434.009	211.091	647.417	23.987 44.290
COLD REGIONS R&E LABORATORY	211	108.787	30.027	133.024	9.084 10.594
COMBAT SURVEILLANCE & IGT ACQUISITION LAB	35	81.242	12.633	0.000	0.697 5.091
COMMUNICATIONS - ELECTRONICS R & D CENTER	0	39.506	93.975	6.485	0.000 23.150
CONSTRUCTION ENGINEERING RESEARCH LAB	31	45.876	33.149	19.420	10.000 6.858
ELECTRONIC WARFARE LABORATORY	6	210.936	43.877	109.138	9.500 59.260
ELECTRONICS TECHNOLOGY AND DEVICES LAB	0	81.909	5.537	4.467	0.000 17.000
ENGINEER TOPOGRAPHIC LABORATORIES	33	90.722	7.000	13.300	6.000 12.000
ENGINEER WATERWAYS EXPERIMENT STATION	3246	1743.808	353.645	176.809	41.186 48.586
FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB	6	167.247	103.974	4.576	9.768 28.985
HARRY DIAMOND LABORATORIES	16	507.829	112.019	121.840	53.921 50.064
HUMAN ENGINEERING LABORATORY	4	9.852	5.696	21.400	10.826 8.507
INSTITUTE OF DENTAL RESEARCH	1	26.424	1.800	14.153	2.548 3.286
INSTITUTE OF SURGICAL RESEARCH	15	306.072	265.224	61.317	18.441 28.363
LARGE CALIBER KEAPONS SYSTEMS LAB	9	119.204	56.941	112.174	43.984 12.984
LETTERMAN ARMY INSTITUTE OF RESEARCH	37	352.000	88.261	48.375	15.554 24.466
MATERIALS AND MECHANICS RESEARCH CENTER	5	45.193	27.300	36.108	3.557 4.379
MEDICAL BIOENGINEERING R&D LABORATORY	0	0.000	38.757	0.000	0.632 0.997
MEDICAL R & D COMMAND	31	36.246	18.945	99.029	9.384 13.234
MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE	215	104.136	20.618	197.909	18.943 12.919
MEDICAL RSCH INST OF INFECTIOUS DISEASES	11000	664.000	241.000	200.000	129.616 112.000
MISSILE LABORATORY	24	502.631	55.340	277.270	28.741 20.600
NATICK R & D CENTER	38	180.639	27.186	20.000	32.000 37.247
NIGHT VISION & ELECTRO OPTICS LABORATORY	0	53.155	14.000	6.200	0.705 0.842
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	4	65.177	14.037	28.647	4.084 7.664
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	6	4.100	32.100	7.200	3.560 5.916
SIGNALS WARFARE LABORATORY	11	257.125	33.284	111.777	215.221 117.445
TANK-AUTO COMMAND R & D CENTER	203	396.274	63.600	0.000	10.080 23.260
WALTER REED ARMY INSTITUTE OF RESEARCH	24199	7743.116	2446.719	2941.870	783.556 901.185
TOTALS					

TABLE 3A. NAVY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1984

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	TOTAL	INHOUSE	RD&E	TOTAL	TOTAL	INHOUSE	RD&E	MIL	CIV	PHD	PROF		
	INHOUSE	RD&E	RD&E	MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV	
AEROSPACE MEDICAL RESEARCH LABORATORY	4.178	4.088	3.461	3.371	37	56	10	11	22	24				
AIR DEVELOPMENT CENTER	352.592	139.377	194.726	90.256	252	2436	6	43	73	1357				
BIOGNATHICS LABORATORY	4.708	3.756	3.847	3.047	34	53	3	2	10	19				
BIOSCIENCES LABORATORY	3.112	3.112	2.830	2.830	9	4	3	0	6	0				
CIVIL ENGINEERING LABOATORY	39.164	21.899	31.211	17.780	16	362	0	32	8	211				
CLOTHING & TEXTILE RESEARCH FACILITY	4.787	3.788	3.116	2.117	1	56	0	1	1	37				
COASTAL SYSTEMS CENTER	101.028	49.412	59.351	31.424	122	902	0	32	18	450				
DAVID M. TAYLOR NAVAL SHIP R&D CENTER	258.944	133.998	187.749	98.755	74	2550	2	115	19	1213				
DENTAL RESEARCH INSTITUTE.	1.812	1.671	1.065	0.924	31	15	7	4	11	15				
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	6.535	3.055	5.292	2.323	14	34	2	8	6	28				
HEALTH RESEARCH CENTER	4.161	3.489	3.177	2.505	31	62	11	11	29	19				
MEDICAL RESEARCH INSTITUTE	24.075	22.302	17.747	15.974	243	197	46	37	74	97				
MEDICAL RESEARCH UNIT NO.2	3.728	3.728	2.739	2.739	25	48	11	1	11	8				
MEDICAL RESEARCH UNIT 3	5.315	5.315	4.289	4.289	28	205	12	18	14	69				
OCEAN R & D ACTIVITY	42.844	18.075	40.830	16.230	13	312	0	77	11	209				
OCEAN SYSTEMS CENTER	443.039	206.084	272.700	135.720	270	2608	2	184	53	1404				
PERSONNEL RESEARCH & DEVELOPMENT CENTER	29.047	17.011	18.453	10.997	24	296	3	94	19	236				
RESEARCH LABORATORY	377.794	244.120	338.336	218.520	146	3219	2	679	75	1515				
SUBMARINE MEDICAL RESEARCH LABORATORY	3.151	3.151	2.228	2.228	36	55	9	16	13	31				
SURFACE WEAPONS CENTER	623.022	245.162	331.206	139.476	104	5173	0	242	33	2389				
UNDERSEA RANGES DEPARTMENT	53.635	11.541	37.399	9.499	25	24	0	2	18	13				
UNDERWATER SYSTEMS CENTER	440.093	177.713	175.799	94.446	84	3002	0	83	73	1743				
WEAPONS CENTER	514.564	251.590	280.809	149.388	570	4152	0	101	35	1718				
TOTALS	3341.328	1573.437	2018.360	1054.838	2189	25821	129	1793	632	12805				

TABLE 4A. NAVY R&D FACILITIES DATA, FY 1984

INSTALLATION	SPACE AND PROPERTY			COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY EQUIPMENT
AEROSPACE MEDICAL RESEARCH LABORATORY	8	111.293	6.796	8.052	4.320 1.022
AIR DEVELOPMENT CENTER	840	852.000	83.000	654.000	36.145 69.347
BIODYNAMICS LABORATORY	1	35.702	24.452	0.000	2.070 0.279
BIOSCIENCES LABORATORY	5	7.625	8.731	34.646	1.000 5.525
CIVIL ENGINEERING LABORATORY	32	112.965	7.746	16.493	7.584 5.304
CLOTHING & TEXTILE RESEARCH FACILITY	1	9.160	10.000	3.600	0.865 0.974
COASTAL SYSTEMS CENTER	648	343.480	42.967	369.393	49.780 25.763
DAVID M. TAYLOR NAVAL SHIP R&D CENTER	325	1705.538	98.035	296.515	74.002 88.404
DENTAL RESEARCH INSTITUTE.	1	21.264	6.001	9.318	0.000 1.032
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	5.446	14.040	5.098	0.000 1.665
HEALTH RESEARCH CENTER	1	19.052	7.159	0.000	0.147 1.584
MEDICAL RESEARCH INSTITUTE	4	159.933	11.720	47.210	7.504 14.264
MEDICAL RESEARCH UNIT NO.2	1	15.439	6.654	2.400	0.130 0.905
MEDICAL RESEARCH UNIT 3	5	89.472	8.962	61.072	9.054 1.184
OCEAN R & D ACTIVITY	5	81.500	46.500	85.200	17.203 13.536
OCEAN SYSTEMS CENTER	2719	1270.241	196.533	218.031	54.388 57.802
PERSONNEL RESEARCH & DEVELOPMENT CENTER	3	65.792	18.417	0.000	0.670 8.723
RESEARCH LABORATORY	1072	2348.281	192.677	495.681	101.306 136.302
SUBMARINE MEDICAL RESEARCH LABORATORY	1	40.514	14.099	0.000	1.315 1.956
SURFACE WEAPONS CENTER	5052	1680.942	205.005	1240.175	107.500 163.496
UNDERSEA RANGES DEPARTMENT	1042	83.442	12.718	347.714	27.226 19.433
UNDERWATER SYSTEMS CENTER	383	1101.377	232.885	571.430	57.331 73.804
WEAPONS CENTER	1127029	1800.708	229.521	3172.325	238.920 117.512
TOTALS	1139178	12031.166	1484.638	7638.353	800.460 809.816

TABLE 5A. AIR FORCE R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1984

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	INHOUSE	TOTAL ROT&E	INHOUSE ROT&E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV				
AERO PROPULSION LABORATORY	125.104	39.232	123.347	37.475	56	328	2	23	46	204				
AEROSPACE MEDICAL RESEARCH LABORATORY	41.681	10.474	32.138	10.111	137	151	24	32	71	87				
ARMAMENT LABORATORY	79.742	44.045	70.201	35.861	175	322	2	16	166	233				
AVIONICS LABORATORY	341.228	45.162	335.682	39.616	152	579	5	35	122	391				
ENGINEERING & SERVICES CNTR / RD	22.179	5.184	19.271	2.304	74	33	7	3	40	22				
FLIGHT DYNAMICS LABORATORY	136.376	54.532	130.113	48.269	173	628	2	33	153	426				
FRANK J SEILER RESEARCH LABORATORY	3.311	3.311	2.022	2.022	23	9	10	1	20	6				
GEOPHYSICS LABORATORY	85.926	34.799	79.227	31.700	126	476	4	98	49	284				
HUMAN RESOURCES LABORATORY	61.731	15.783	54.501	12.088	176	236	8	44	85	130				
MATERIALS LABORATORY	141.953	26.123	132.108	24.328	51	296	3	55	45	232				
ROCKET PROPULSION LABORATORY	49.335	18.748	44.724	14.433	175	249	1	17	66	107				
ROME AIR DEVELOPMENT CENTER	344.373	41.015	259.466	35.028	220	1088	3	64	122	600				
SCHOOL OF AEROSPACE MEDICINE	24.796	14.979	24.142	14.325	358	271	44	41	70	102				
WEAPONS LABORATORY	273.932	107.532	255.999	89.599	618	514	30	52	427	204				
TOTALS	1731.867	460.919	1562.941	397.159	2514	5180	145	514	1482	3028				

TABLE 6A. AIR FORCE R&D FACILITIES DATA, FY 1984

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AERO PROPULSION LABORATORY						
AEROSPACE MEDICAL RESEARCH LABORATORY						
ARMAMENT LABORATORY						
AVIONICS LABORATORY						
ENGINEERING & SERVICES CNTR / RD						
FLIGHT DYNAMICS LABORATORY						
FRANK J SEILER RESEARCH LABORATORY						
GEOPHYSICS LABORATORY						
HUMAN RESOURCES LABORATORY						
MATERIALS LABORATORY						
ROCKET PROPULSION LABORATORY						
RODIE AIR DEVELOPMENT CENTER						
SCHOOL OF AEROSPACE MEDICINE						
WEAPONS LABORATORY						
WPAFB, OH.	44	266.165	47.779	123.889	83.158	37.501
WPAFB, OH.	30	115.731	1.257	105.618	79.656	28.997
EGLIN AFB FL	0	49.766	0.000	145.079	7.468	0.000
WPAFB, OH.	220	229.369	9.483	405.264	46.921	119.987
TYNDALL AFB, FL.	3	12.000	14.000	0.000	1.960	2.921
WPAFB, OH.	76	546.654	5.100	168.182	50.676	44.630
USAF ACADEMY, CO.	0	190.000	3.000	0.000	1.820	2.628
HANSCOM AFB, MA.	336	393.389	14.821	25.883	9.871	39.154
BROOKS AFB, TX.	5	81.180	65.319	62.879	6.851	109.764
WPAFB, OH.	15	188.750	117.941	54.123	23.340	66.433
EDWARDS AFB, CA.	68345	419.046	86.848	4.780	126.300	27.425
GRIFFISS AFB, N.Y.	1517	764.945	52.839	182.271	29.595	56.243
BROOKS AFB, TX.	1309	433.578	59.078	193.122	53.153	26.898
KIRTLAND AFB, N.M.	702	705.130	130.000	132.000	75.595	82.950
TOTALS	72602	4395.703	607.465	1603.090	596.364	645.531

TABLE 7A. DEPARTMENT OF DEFENSE P&D FACILITIES DATA, FY 1984

INSTALLATION	ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)		COST (MILLIONS \$)	
		LABORATORY	ADMIN	REAL PROPERTY	EQUIPMENT
ARMED FORCES RADIOBIOLOGY RSCH.INSTITUTE	10	26.523	16.047	13.415	17.314
BETHESDA,MD.					
TOTALS	10	26.523	16.047	13.415	17.314

TABLE 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

<u>COMMAND CHAIN</u>	
<u>INTERMEDIATE</u>	<u>COMMAND</u>
RES INST FOR BEHAVIORAL & SOCIAL SCIENCES	DEPUTY CHIEF OF STAFF FOR PERSONNEL
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	THE SURGEON GENERAL
SIGNALS WARFARE LABORATORY	MATERIEL COMMAND
TANK-AUTOMOTIVE COMMAND R&D CENTER	MATERIEL COMMAND
WALTER REED ARMY INSTITUTE OF RESEARCH	THE SURGEON GENERAL

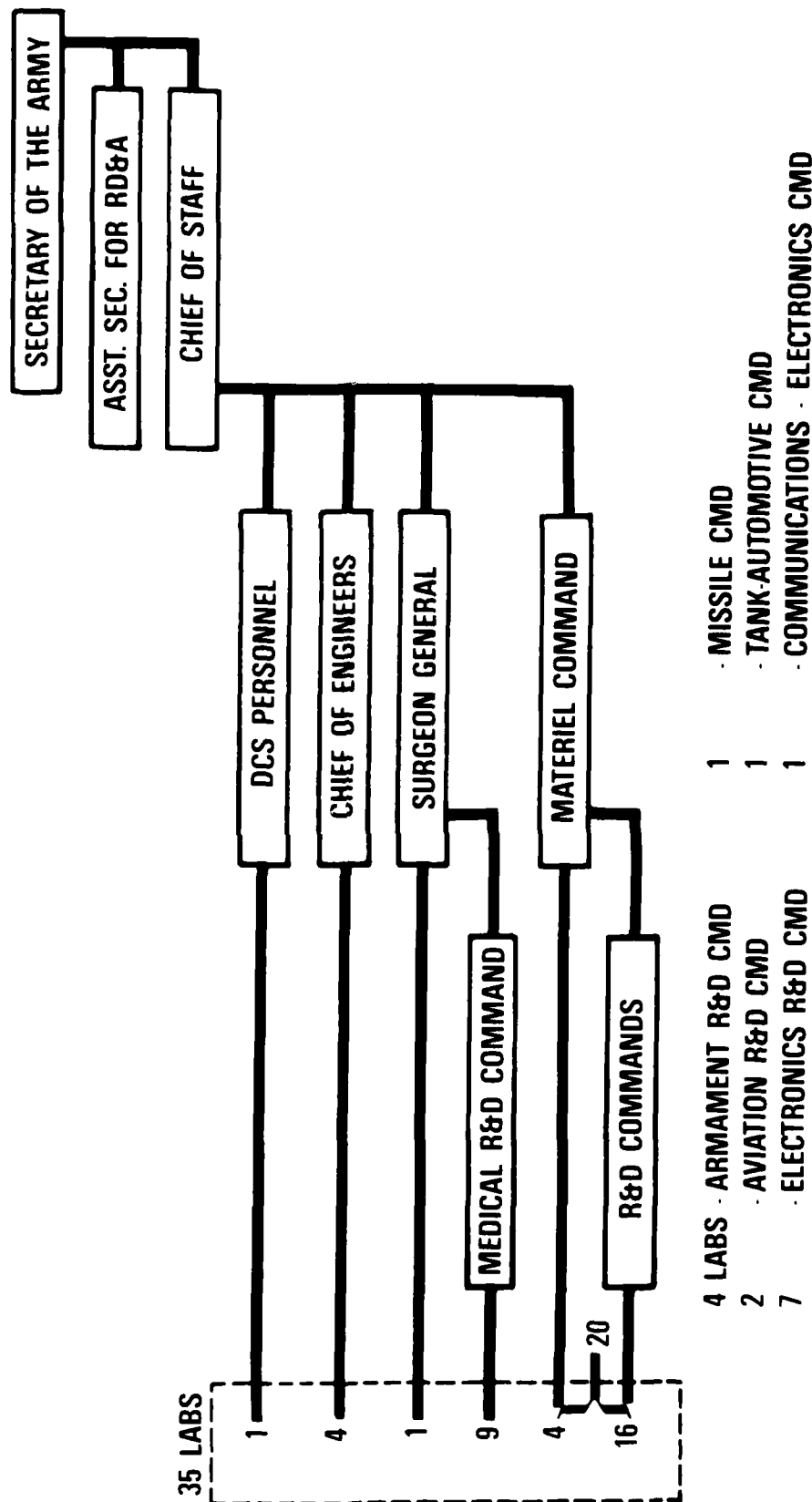
TABLE 9 - NAVY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

	INTERMEDIATE	COMMAND CHAIN	COMMAND
AEROSPACE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND	NAVAL MEDICAL COMMAND
AIR DEVELOPMENT CENTER	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
BIODYNAMICS LABORATORY	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND	NAVAL MEDICAL COMMAND
BIOSCIENCES LABORATORY	--	CHIEF OF NAVAL RESEARCH	CHIEF OF NAVAL RESEARCH
CIVIL ENGINEERING LABORATORY	NAVAL FAC ENG COMMAND	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
CLOTHING AND TEXTILE RESEARCH FACILITY	NAVAL SUPPLY SYS COMMAND	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
COASTAL SYSTEMS CENTER	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
DAVID W. TAYLOR SHIP R&D CENTER	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
DENTAL RESEARCH INSTITUTE	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND	NAVAL MEDICAL COMMAND
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	NAVAL AIR SYSTEMS COMMAND	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
HEALTH RESEARCH CENTER	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND	NAVAL MEDICAL COMMAND
MEDICAL RESEARCH INSTITUTE	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND	NAVAL MEDICAL COMMAND
MEDICAL RESEARCH UNIT NO. 2	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND	NAVAL MEDICAL COMMAND
MEDICAL RESEARCH UNIT NO. 3	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND	NAVAL MEDICAL COMMAND
OCEAN R&D ACTIVITY	--	CHIEF OF NAVAL RESEARCH	CHIEF OF NAVAL RESEARCH
OCEAN SYSTEMS CENTER	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
PERSONNEL RESEARCH & DEVELOPMENT CENTER	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
RESEARCH LABORATORY	--	CHIEF OF NAVAL RESEARCH	CHIEF OF NAVAL RESEARCH
SUBMARINE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND	NAVAL MEDICAL COMMAND
SURFACE WEAPONS CENTER	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
UNDERSEAS RANGES DEPARTMENT	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
UNDERWATER SYSTEMS CENTER	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL
WEAPONS CENTER	DIRECTOR OF NAVAL LABS	CHIEF OF NAVAL MATERIAL	CHIEF OF NAVAL MATERIAL

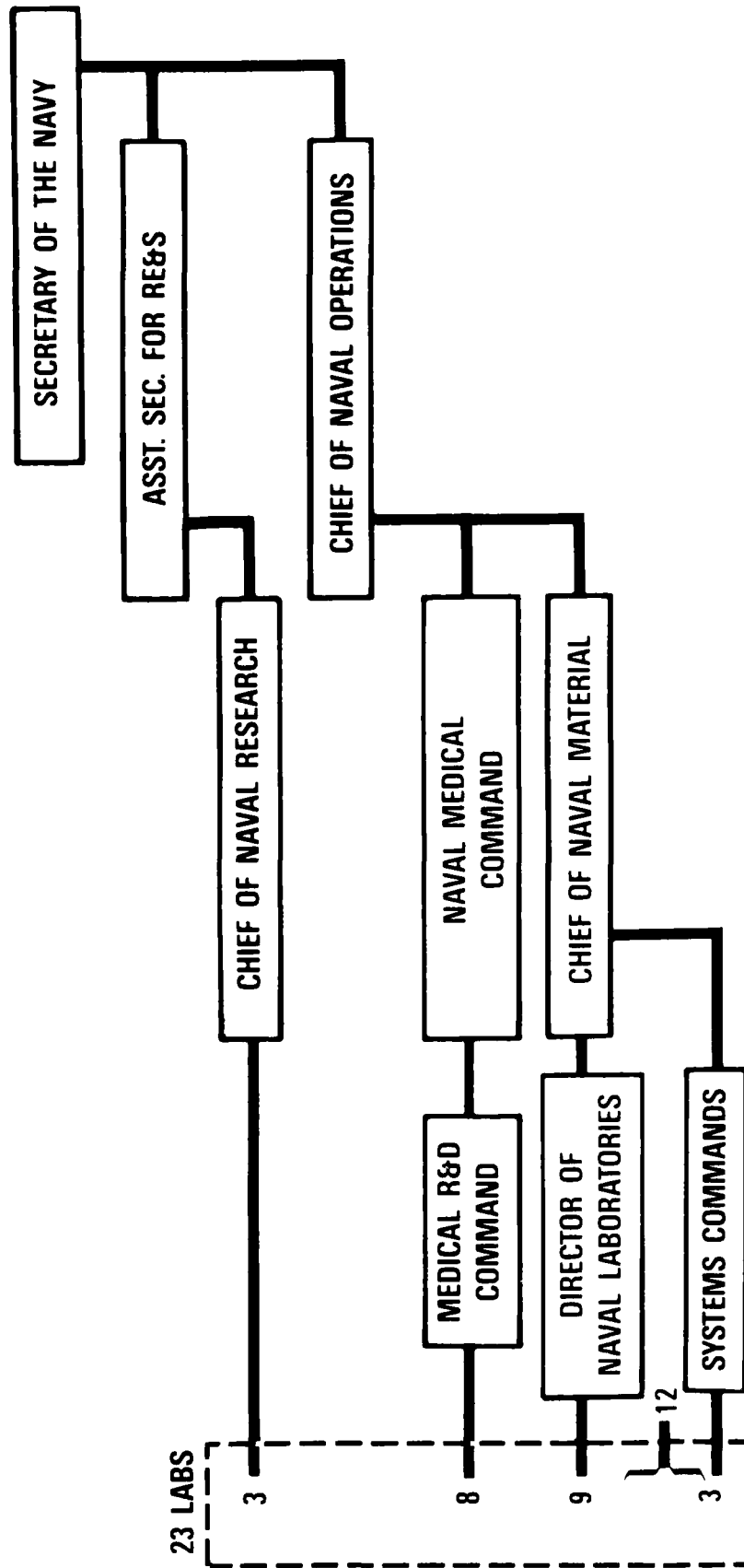
TABLE 10 AIR FORCE RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

COMMAND CHAIN		
INTERMEDIATE		COMMAND
AEROPROPULSION LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
AEROSPACE MEDICAL RESEARCH LABORATORY	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
ARMAMENT LABORATORY	ARMAMENT DIVISION	AF SYSTEMS COMMAND
AVIONICS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
ENGINEERING SERVICES LABORATORY	ENGINEERING SVCS CTR/AFSC	HQ US AIR FORCE
FLIGHT DYNAMICS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
FRANK J. SEILER RESEARCH LABORATORY	OFFICE OF SCIENTIFIC RES	AF SYSTEMS COMMAND
GEOPHYSICS LABORATORY	SPACE TECHNOLOGY CENTER	AF SYSTEMS COMMAND
HUMAN RESOURCES LABORATORY	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
MATERIALS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
ROCKET PROPULSION LABORATORY	SPACE TECHNOLOGY CENTER	AF SYSTEMS COMMAND
ROME AIR DEVELOPMENT CENTER	ELECTRONIC SYSTEMS DIVISION	AF SYSTEMS COMMAND
SCHOOL OF AEROSPACE MEDICINE	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
WEAPONS LABORATORY	SPACE TECHNOLOGY CENTER	AF SYSTEMS COMMAND

ARMY LABORATORIES COMMAND CHAIN



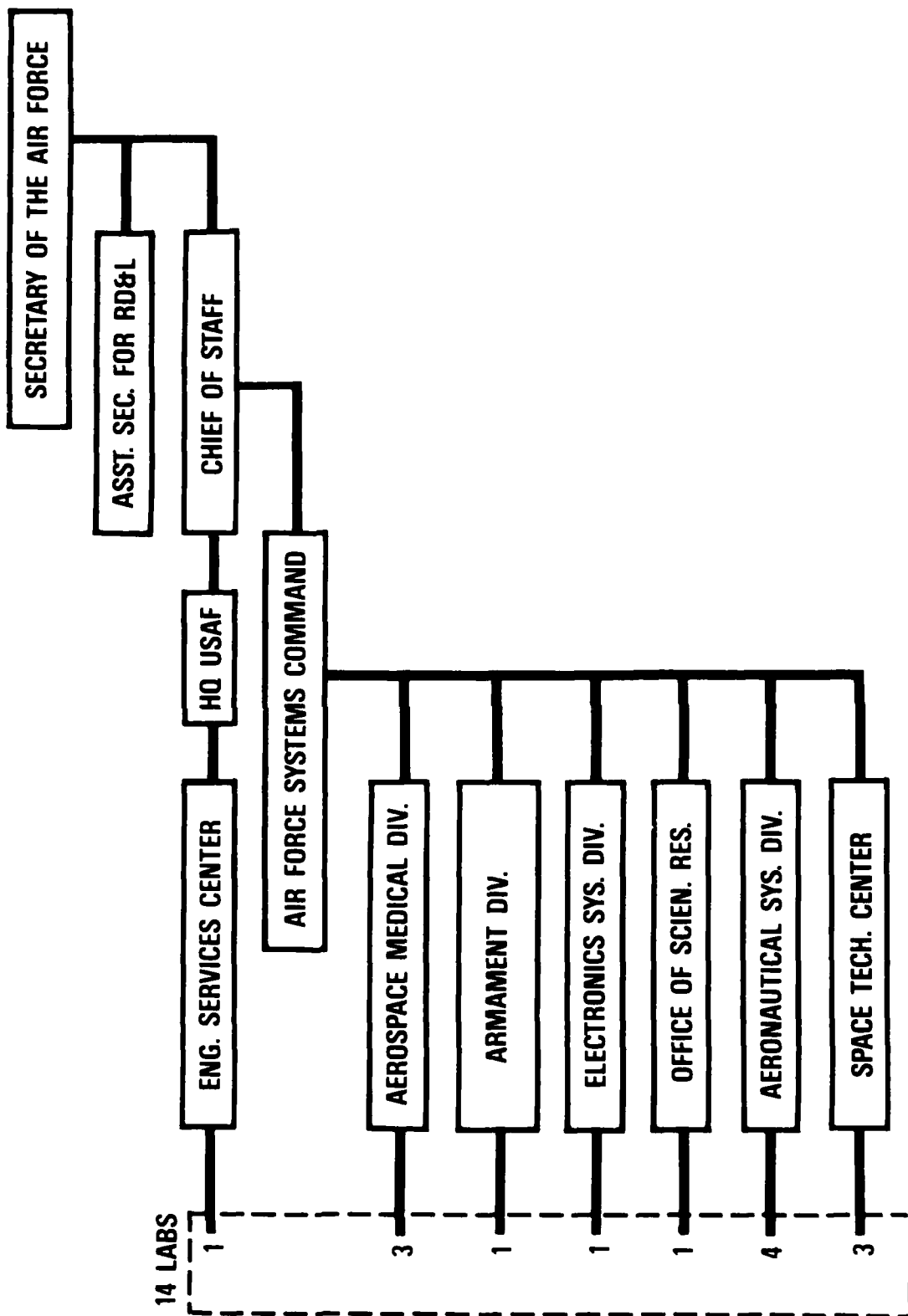
NAVY LABORATORIES COMMAND CHAIN



- 1 LAB-SUPPLY SYSTEMS CMD
- 1 LAB-AIR SYSTEMS CMD
- 1 LAB-FACILITIES ENGINEERING CMD

XXXX

AIR FORCE LABORATORIES COMMAND CHAIN



INSTALLATION: AEROMEDICAL RESEARCH LABORATORY

FT. RUCKER, AL.

CDR. COL DUDLEY R. PRICE

DEP CDR. LTC J. D. LAMOTHE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	6.527	9.709
TOTAL PROCUREMENT	0.016	0.000
TOTAL O&M	0.001	0.008
TOTAL OTHER	2.215	3.076
TOTAL ANNUAL LAB	8.759	12.793
TOTAL INHOUSE	8.496	11.817
TOTAL INHOUSE RDT&E	6.264	8.733
ANNUAL OPERATING COST	3.186	3.591

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	72	16	29	43
CIVILIAN	70	9	20	50
TOTAL	142	25	49	93

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
53	89.283	20.000	18.000	127.283	6.351	12.775

...MISSION

CONDUCTS LIFE SCI RSCH IN AVIATION, COMBAT VEH, COMBAT SPNS SYS ENVIRMT & THEIR EFF ON CREWMBSR HEALTH, SAFETY, & PERF. PROVIDES TO DESIGNERS, DEVLPRS, & USERS OF ARMY SYS DB'S ACQ THRU FIELD & LAB RSCH. ASSTS OTH MRDC ACTYS IN RSCH ON MED DEF AGST CHEM AGTS & DEV OF IMP PATIENT EVAC.

...CURRENT IMPORTANT PROGRAMS

EFFECTS OF NERVE AGENT ANTIDOTES ON THE VISUAL SYSTEM.
INDIVIDUAL AND CREW EFFICEINCY ENHANCEMENT.
AUDITORY EFFECTS OF BLAST OVERPRESSURE.
VIBRATION HAZARDS OF COMBAT AIRCRAFT AND VEHICLES.
BIOEFFECTS OF COMBAT MATERIEL AND OPERATIONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MULTI-AXIS VIBRATION SYSTEM; HELICOPTER IN-FLIGHT MONITORING SYSTEM WITH INSTRUMENTED RANGE; ANECHOIC AND REVERBERATION CHAMBERS; MOBILE ACOUSTICS LAB; EYE MOVEMENT MEASURING LAB; AIRCRAFT MODIFIED FOR IN-FLIGHT MEDICAL RESEARCH; VIVARIUM; SINGLE-AXIS VIBRATION SYSTEM. DATA ACQUISITION AND BIOTELEMETRY SYSTEM; ELECTRON AND LIGHT MICROSCOPY LAB; FIELD RESEARCH FACILITY; ANALOGUE AND DIGITAL COMPUTER SYSTEM; IMPACT FACILITY SCIENTIFIC AND MEDICAL RESEARCH INFORMATION CENTER; SPECTROGRAPHIC ANALYSIS PROGRAM; CARDIOPULMONARY LAB; BIO-OPTICAL TESTING LAB; OPTICAL FABRICATION LAB; VISUAL NEUROPHYSIOLOGY LAB; SHOCK TUBE (HIGH INTENSITY IMPULSE NOISE GENERATOR); ELECTRO-OPTICAL TESTING LAB; AND HIGH PRESSURE LIQUID CHROMATOGRAPHY.

INSTALLATION: AIR DEFENSE ARTILLERY BOARD

FORT BLISS, TX

PRES. COL JOE M. BOX

TECH ADV. MR. ALEJANDRA ESTORGA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	5.084	8.063
TOTAL PROCUREMENT	1.646	0.717
TOTAL O&M	0.335	1.151
TOTAL OTHER	2.947	3.082
TOTAL ANNUAL LAB	10.012	13.013
TOTAL INHOUSE	8.208	10.641
TOTAL INHOUSE RDT&E	3.995	6.395
ANNUAL OPERATING COST	0.737	0.727

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	98	0	24	74
CIVILIAN	94	1	15	79
TOTAL	192	1	39	153

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	11.220	37.090	35.357	83.667	1.370	14.871

...MISSION

PLAN, CONDUCT AND REPT ON OPERATIONAL AND OTHER USER TESTS. PARTICIPATE IN OTHER TESTING AS DIR. PROV ADVICE AND GUIDN ON TEST MATTERS TO COMBAT TRAINING AND MAT DEVELOPERS, OTHER SERVICES, AND PRIVATE INDUSTRY. CONDUCT OTHER TESTS AND SELECTED SPECIFIC EVAL AS DIR BY CG TRADOC.

...CURRENT IMPORTANT PROGRAMS

SGT YORK (DVT)
SGT YORK (IPT)
SGT YORK (FOE)
HAWK (PIP) PHASE III
PIVADS OT III

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT: MULTIPLE TGT TRACKING SYS PROVIDES DATA FROM AIR AND GROUND TGTS, TWO LASER TRACKING SYS PROVIDE DATA FROM COOPERATIVE TGTS; INSTR RADAR SYS THAT PROVIDES HIGH ACCURACY; ONE NIKE-HERC FIRE CON SYS USED WITH RADAR DATA RECORDER; A RANGE TIMING SYS TO PROVIDE A TIME BASE FOR ALL INSR SYS; TWO DATA ACQ SYS ACCEPT 59 DIFFERENT SIGNALS, CCTV SYS FOR RANGE SAFETY; TECH PHOTO LAB FOR REQUIRED DATA; RICS PROVIDES NEAR REAL TIME DATA OUTPUTS. FACILITIES AT FT BLISS: BLDG 1656 HOUSES RICS; RANGE TIMING SYS; DATA REDUCTION SYS; ELECTRONICS CAL & FABRICATION LAB; MACHINE & CARPENTER SHOPS; MICROWAVE TERMINAL THAT PROVIDES DATA & COMMO LINK TO RANGES; BLDG 1658 - PHOTOGRAPHIC LAB; MCGREGOR AND NORTH MCGREGOR RANGES FOR FIRING FORWARD AREA WEAPONS AT AIR OR GROUND TGTS.

PRES. COL WILLIAM T. PALMER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	2.717	3.190
TOTAL PROCUREMENT	0.421	0.411
TOTAL O&M	1.592	1.480
TOTAL OTHER	2.834	2.174
TOTAL ANNUAL LAB	7.564	7.255
TOTAL INHOUSE	7.214	6.770
TOTAL INHOUSE RDT&E	2.367	2.705
ANNUAL OPERATING COST	2.255	2.407

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	99	0	16	83
CIVILIAN	43	0	5	38
TOTAL	142	0	21	121

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
27	3.978	40.795	40.182	84.955	0.000	8.953

...MISSION

THE MISSION OF THIS BOARD IS TO PLAN, CONDUCT & REPORT ON OT I, II, & III FDTE AND OTHER USER-TYPE TESTS OF ABN EQUIP, PROCEDURES, & SYSTEMS; PARTICIPATE IN DT AS DIRECTED; PROVIDE ADVICE & GUIDANCE ON TEST & EVALUATION MATTERS; CONDUCT OTHER TESTS & EVALUATIONS AS DIRECTED.

...CURRENT IMPORTANT PROGRAMS

LOW ALTITUDE PARACHUTE EXTRACTION SYSTEM
STANDARD AIRDROP OF SELECTED ITEMS OF EQUIPMENT
EXTERNAL AIR TRANSPORTABILITY
INTERNAL AIR TRANSPORTABILITY
AIRBORNE/AIRMOBILE ENGINEER EQUIPMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE: MAIN OFC BLDG, ABN HANGAR, INSTRUMENTATION/DESIGN INTERFACING SECTION, COMBINED SHIP & ADP FACILITY. MAJOR EQUIPMENT INCLUDES: 5 LIGHTWEIGHT OPTICAL TRACKING SYSTEMS, 25-TON CRANE, 2 20-TON MOBILE CRANES, 5-TON WRECKER, 2 40,000 LB ACFT LOADER, 3 T-28B ACFT, 1 UH-1H HELICOPTER, VARIOUS TYPES OF STANDARD PARACHUTES, 9 GASOLINE GENERATORS, DIGITAL THEODOLITES, ELECTRONIC DIAGNOSTIC EQUIPMENT, VOLT-METERS, AMMETERS, SPECTRUM ANALYZERS, SOUND & VIBRATION ANALYZERS, TIME MARK GENERATORS, OSCILLOSCOPES, MULTIMETERS, RANDOM NOISE GENERATORS, POWER SUPPLIES, Q METERS, ATTENUATORS, GRAPHIC LEVEL RECORDERS, 16MM CAMERAS, FILM ANALYZERS, PORTABLE VIDEO EQUIPMENT, VAN METER, ANALOG TAPE RECORDER, FREQUENCY COUNTERS, SOUND LEVEL CALIBRATORS, METER CALIBRATORS, MEGOHMMETER.

INSTALLATION: ARMOR AND ENGINEER BOARD

FORT KNOX, KY

PRES. COL GARRETT E. DUNCAN

CIV SCI ADV. MR. WARREN W. WELLS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	7.474	11.678
TOTAL PROCUREMENT	0.876	2.300
TOTAL O&M	0.349	0.426
TOTAL OTHER	3.894	4.007
TOTAL ANNUAL LAB	12.593	18.411
TOTAL INHOUSE	12.593	18.411
TOTAL INHOUSE RDT&E	7.474	11.678
ANNUAL OPERATING COST	0.866	0.834

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	197	0	65	132
CIVILIAN	100	1	23	77
TOTAL	297	1	88	209

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	63.365	50.454	88.069	201.888	1.455	14.850

...MISSION

PLAN CONDUCT & REPORT: OTI, II, III, FDTE, FOE, CEP, PIP, & OTHER USER TESTS OF AR, ENGR, CML, QM & TRANS SCH EQ. PROVIDE GUIDANCE/ADVICE TO DEVELOPERS, PRODUCERS & OTHER SVCS/PRIVATE INDUSTRY. PLAN/COORDINATE/CONDUCT/RPT ON PERFORMANCE TESTS OF TEST BED VEHICLES & ADVANCED TECHNOLOGIES.

...CURRENT IMPORTANT PROGRAMS

C2V

TANK COMBAT TABLES (TACTICAL AND GUNNERY)

M9 ARMORED COMBAT EARTHMOVER

DECONTAMINATION AND NBC WARNING AND PROTECTION EQUIPMENT

BRADLEY FIGHTING VEHICLE SYSTEM TURRET MAINTENANCE TRAINER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VIDEO AUTOMATIC TARGET TRACKING SYS; SIMFIRE HIT-KILL INDICATOR; POSITION LOCATION SYS; WIRE GUIDED EVASIVE TARGET SYS; TANK VIDEO SYS; GUN CAMERA; RANGE TIMING EQ; TELEMETRY EQ; 16MM MOTION PICTURE CAMERA W/DATADOORS; GUN ELEVATION LIMITING DEVICE; SLR CAMERA; AUTOMATIC FILM ANALYZER & DIGITIZER SYS; DATA ANALYSIS & RECORDING SUBSYS; VIDEO I; VIDEO II; METEOROLOGICAL INSTRUMENTATION; MICROCOMPUTER DEV LAB; AUTOMATIC TARGET SCORING SYS; DIGITAL VIDEO PROCESSOR; BT-41 TANK COMBAT SIMULATOR; OPTICAL LIGHT BEAM SPLITTER. ADP CAPABILITIES INCLUDE IN-HOUSE REDUCTION & ANALYSIS OF INSTR GENERATED DATA, TELECOMMUNICATIONS INTERFACE TO CD & T&E NETWORK & CLASSIFIED PROCESSING. OTHER CAPABILITIES: 40-TON OVERHEAD CRANE; MACHINE SHOP & MAINT EQ SETS; CBT VEH, TACTICAL WHEELED VEH & ENGR CONSTRUCTION EQ; ELEVATED CAMERA PLATFORM.

DIR. DR. ROBERT E. WEIGLE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984	1985
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	95.057	98.670
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.004	0.000
TOTAL OTHER	0.106	0.153
TOTAL ANNUAL LAB	95.167	98.823
 TOTAL INHOUSE	 0.106	 0.153
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	2.135	2.230

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON-PROF
MILITARY	2	0	2	0
CIVILIAN	134	36	36	98
TOTAL	136	36	38	98

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
6	0.000	29.400	0.000	29.400	0.000	0.723

...MISSION

DEVELOP THE AMC RESEARCH PROGRAM FOR MATHEMATICS, AND THE PHYSICAL, ENGINEERING, ATMOSPHERIC, TERRESTRIAL, AND BIOLOGICAL SCIENCES. ALSO ASSESS, EVALUATE AND PRIORITIZE THE AMC 6.1 RESEARCH PROGRAM AND ASSESS AND EVALUATE THE AMC 6.2 EXPLORATORY DEVELOPMENT EFFORT.

...CURRENT IMPORTANT PROGRAMS

RESEARCH IN ARTIFICIAL INTELLIGENCE.
CHEMICAL AND BIOLOGICAL DEFENSE.
ROTARY WING AIRCRAFT RESEARCH.
RESEARCH IN IMAGE PROCESSING.
NOVEL NONDESTRUCTIVE EVALUATION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ADMINISTRATION OF RESEARCH PROGRAMS IN PHYSICAL SCIENCES
MATHEMATICS, MATERIALS, ELECTRONICS, MECHANICS AND AERONAUTICS.
ADMINISTRATION OF THE RESEARCH PORTION OF ARMY RESEARCH AND STANDARDIZATION OFFICE, LONDON, COORDINATES ARMY RESEARCH EFFORTS WITHIN THE ARMY AND WITH OTHER GOVERNMENT AGENCIES SUCH AS NAVY, NASA, DOD, DOE, NSF AND OTHERS.

INSTALLATION: ATMOSPHERIC SCIENCES LABORATORY

WHITE SANDS MR, N.M.

CDR/DIR. COL TODD D. STONG

DEP DIR. MR. JAMES E. MORRIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	29.725	37.006
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.071	0.021
TOTAL OTHER	1.744	0.493
TOTAL ANNUAL LAB	31.540	37.520
TOTAL INHOUSE	18.718	19.384
TOTAL INHOUSE RDT&E	16.903	18.870
ANNUAL OPERATING COST	5.348	5.767

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	76	1	1	75
CIVILIAN	405	32	156	249
TOTAL	481	33	157	324

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	51.541	26.663	67.658	145.862	20.213	22.878

...MISSION

RESPONSIBLE FOR THAT PORTION OF ERADCOM MISSION DEVOTED TO RESEARCH IN ATMOSPHERIC SCIENCES. DEVELOP METEOROLOGICAL TECHNIQUES AND EQUIPMENT FOR THE FIELD ARMY. PROVIDE METEOROLOGICAL MEASUREMENTS AND ANALYSIS TO SUPPORT ARMY RDTE ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

ATMOSPHERIC DATA AND TECHNOLOGY FOR ARMY RDTE.
TACTICAL WEATHER INTELLIGENCE PRODUCTS FOR COMBAT OPERATIONS.
BATTLEFIELD ATMOSPHERIC EFFECTS ON ARMY SYSTEMS AND OPERATIONS.
FIRE SUPPORT METEOROLOGY FOR ARTILLERY AND TARGET AREA REQUIREMENTS.
ATMOSPHERIC REMOTE SENSING TECHNIQUES FOR ARMY TACTICAL APPLICATIONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

METEOROLOGICAL RESEARCH FACILITY AND CAPABILITY.
METEOROLOGICAL RDTE SUPPORT FACILITIES - ALASKA TO CANAL ZONE.
NATIONAL HIGH ENERGY LASER SYSTEM TEST FACILITY.
AUTOMATIC METEOROLOGICAL STATION, AN/TMQ-30.
TACTICAL WEATHER INTELLIGENCE SYSTEM.
REMOTE WIND SENSING 3-KILOMETER LASER DOPPLER VELOCIMETER SYSTEM.
MULTISPECTRAL IMAGE DATA ACQUISITION SYSTEM.
TRANSPORTABLE ATMOSPHERIC CHARACTERIZATION SYSTEM.
SIMULTANEOUS MULTISPECTRAL ABSOLUTE RADIOMETER/TRANSMISSOMETER.
LOW VISIBILITY INFRARED TRANSMISSOMETER SYSTEM.
UPPER ATMOSPHERE RESEARCH AND SOUNDING ROCKET FACILITY AND CAPABILITY.

INSTALLATION: AVIATION BOARD

FT. RUCKER, AL.

PRES. LTC TROY E. BURROW

TECH ADV. MR. GEORGE E. SLAGLEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	3.982	4.914
TOTAL PROCUREMENT	0.117	0.095
TOTAL O&M	0.821	0.273
TOTAL OTHER	2.106	2.235
TOTAL ANNUAL LAB	7.026	7.517
TOTAL INHOUSE	7.026	7.517
TOTAL INHOUSE RDT&E	3.982	4.914
ANNUAL OPERATING COST	1.901	1.947

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	122	0	21	101
CIVILIAN	46	2	18	28
TOTAL	168	2	39	129

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	18.826	20.470	39.296	0.000	1.591

...MISSION

TO PLAN, CONDUCT AND REPORT ON OPERATIONAL TEST I, II AND IIA FOR
NONMAJ AND OTHER TEST AS DIRECTED BY HQ TRADOC. AVN BD DESIGNS AND
CONDUCTS TESTING AND EVALUATION OF AVIATION SYSTEMS, SUBSYSTEMS AND
ANCILLIARY EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

OTN1109A XM40 MASK
OTN1033 RADAR WARNING RECEIVER AN/APR-39A
OTN966 AIRCREW SURVIVAL VEST
OTN876 SELF-PROPELLED ELEVATED MAINTENANCE STAND
OTN632 AVIATION GROUND POWER UNIT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NO MAJOR EQUIPMENT OR FACILITIES.

INSTALLATION: AVIATION DEVELOPMENT TEST ACTIVITY

FT. RUCKER, AL.

CDR. COL JOHN O. TURNAGE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	11.724	11.615
TOTAL PROCUREMENT	3.543	1.711
TOTAL O&M	4.873	2.137
TOTAL OTHER	3.803	3.902
TOTAL ANNUAL LAB	23.943	19.365
TOTAL INHOUSE	23.943	19.365
TOTAL INHOUSE RDT&E	11.724	11.615
ANNUAL OPERATING COST	8.161	7.785

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	194	0	36	158
CIVILIAN	93	0	26	67
TOTAL	287	0	62	225

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1196	0.000	43.737	132.172	175.909	1.756	26.895

...MISSION

PLAN, CONDUCT, AND REPORT ON TESTS OF AVIATION SYSTEMS AND AVIATION RELATED EQUIPMENT FOR THE ARMY. PLAN, CONDUCT AND REPORT ON TESTS OF AVIATION SYSTEMS AND AVIATION RELATED SUPPORT EQUIPMENT FOR NON-ARMY GOVERNMENT AGENCIES AND PRIVATE INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

AH64A LOGISTICS EVALUATION
CH47D LOGISTICS EVALUATION
AH1S/OH58C/UH60A PROG MAINT EVAL.
AH1S IMPROVED MAIN ROTOR BLADE
UH1H IMPROVED (SPLIT) ENGINE DECK

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TWENTY-SIX FIXED AND ROTARY WING AIRCRAFT ARE ASSIGNED (9 UH-1, 2 CH-47 5 OH-58, 1 OV-1, 1 U-21, 4 AH-1, 1 T-42, 1 UH-60 AND 2 TH-55) WHICH MAY BE USED AS TEST BEDS FOR ALL COMPONENTS, EQUIPMENT OR SUPPLIES APPLICABLE TO THAT SERIES. A MODULAR ENGINE TEST SYSTEM (METS) PROVIDES ACCURATE MEASUREMENTS OF TURBINE ENGINE PERFORMANCE FOR ENGINE UP TO 5000 HP & WT UP TO 2000 LB. AN OVER-WATER RANGE IS AVAIL FOR RELIABILITY TESTING OF A/C WPNS SYSTEMS. ON-SITE DATA PROCESSING AND DISPLAY CAPABILITY EXISTS WITH A PDP-11 & IBM 4331 COMPUTER SYS. ADMIN & TECH PHOTO CAP ARE AVAIL TO INCL VIDEO & 16MM INSTRUMENTATION CAMERAS. ANALOG AND DIGITAL MEASUREMENTS CAN BE COLLECTED, USING 14-TRACK INSTR RECORDERS. USAAVNDA HAS B&W & COLOR VIDEO RECORDING CAP; AS WELL AS STRIP-CHART OSCILLOGRAPH RECORDERS & AIRINC 514 AIR LE-TYPE CRASH RECORDERS.

INSTALLATION: AVIATION ENGINEERING FLIGHT ACTIVITY

EDWARDS AFB, CA.

CDR. COL ALAN R. TODD

TECH DIR. MR. JAMES S. HAYDEN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	7.313	8.438
TOTAL PROCUREMENT	0.993	1.092
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.061	2.196
TOTAL ANNUAL LAB	10.367	11.726
TOTAL INHOUSE	9.963	11.282
TOTAL INHOUSE RDT&E	6.909	7.994
ANNUAL OPERATING COST	1.363	1.499

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	65	0	30	35
CIVILIAN	100	0	46	54
TOTAL	165	0	76	89

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
19	9.200	1.600	124.800	135.600	4.042	29.363

...MISSION

PRODUCE ENGR FLT TEST DATA ON ACFT PERF, HANDLING QUALITIES VIBRATION
SYS/SUBSYSTEM INTERFACE FOR USE IN ACFT DEVELOPMENT AND QUALIFICATION.
SUSTAIN THE CAPABILITY TO COMPLETELY INSTRUMENT TEST ACFT WITH ONBOARD
RECORDING/TELEMETRY REAL TIME DATA REDUCTION. CONDUCT PRE-TPS ORIENT.

...CURRENT IMPORTANT PROGRAMS

AIRWORTHINESS AND FLIGHT CHARACTERISTICS UH-60A 6TH YEAR PRODUCTION
AIRWORTHINESS AND FLIGHT CHARACTERISTICS OH-58D
PRELIMINARY AIRWORTHINESS EVALUATION AH-1S HELLFIRE/TOW
STALL WARNING CHARACTERISTICS OV-1D
INSTRUMENT METEOROLOGICAL CONDITIONS EVALUATION AH-1S

...FUNCTIONS/EQUIPMENT/CAPABILITIES

JT-28B 2T-28B 20V-1C OV-1D JU21A JAH-1S AH-1S 2JCH-47C JOH-58C JUH-60A
5JUH-1H
ACFT MAINTENANCE CAPABILITY
ACFT MODIFICATION CAPABILITY
ACFT INSTRUMENTATION CAPABILITY
AIRBORNE DATA ACQUISITION-SYSTEMS
IEMR COMPUTER WITH TELEMETRY
3 REMOTE GROUND STATIONS WITH COMPUTER AND TELEMETRY CAPABILITY

INSTALLATION: AVIATION RESEARCH & TECHNOLOGY LABORATORIES MOFFETT FIELD, CA.

DIR. DR. RICHARD M. CARLSON

DEP DIR. COL WALTER URBACH, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	99.544	137.631
TOTAL PROCUREMENT	1.731	1.026
TOTAL O&M	1.352	1.310
TOTAL OTHER	0.858	0.880
TOTAL ANNUAL LAB	103.485	140.847
 TOTAL INHOUSE	 31.161	 39.956
TOTAL INHOUSE RDT&E	28.582	37.675
ANNUAL OPERATING COST	7.882	7.805

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	24	3	19	5
CIVILIAN	369	29	253	116
TOTAL	393	32	272	121

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
127	88.848	58.673	16.370	163.891	2.272	19.029

...MISSION

MANAGE AND EXECUTE RESEARCH AND DEVELOPMENT OF ARMY AIRMOBILE SYSTEMS. PROVIDE TECHNICAL SUPPORT TO PROJECT/PRODUCT MANAGERS AND SYSTEM DEVELOPERS AS REQUIRED. PROVIDE INDEPENDENT TECHNICAL RISK ASSESSMENT TO COMMANDER USA AVSCOM AND HIGHER AUTHORITY.

...CURRENT IMPORTANT PROGRAMS

RSCH IN FUNDAMENTAL ROTOR/ROTORCRAFT AERODYNAMICS, DYNAMICS, AND NOISE. R&D OF ENGINES, SMALL GAS TURBINES, TRANSMISSIONS, AND BEARINGS. R&D TO IMPROVE RELIABILITY & MAINTAINABILITY OF AIRMOBILE SYSTEMS. RSCH COMPOSITES & EVALUATE APPLICATIONS TO IMPROVE STRUCTURES FOR A/C. EVOLVE TECHNOLOGY & CRITERIA TO IMPROVE FLIGHT SAFETY & SURVIVABILITY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE LABORATORIES - AT MOFFETT FIELD CA, CLEVELAND OH, HAMPTON VA; COLLOCATED WITH NASA; PARTICIPATING IN AERONAUTICAL RESEARCH AND DISCIPLINES; JOINTLY USING WIND TUNNELS, SIMULATORS AND LABORATORY TEST FACILITIES, INCLUDING SHOPS, FLIGHT LINE AND HANGER, ENGINE AND TRANSMISSION TEST FACILITIES AND COMPUTATIONAL EQUIPMENT. FOURTH LABORATORY AT FORT EUSTIS VA, PERFORMING ADVANCED APPLICATIONS WORK INCLUDING AIRCRAFT WEAPONIZATION AND MISSION SUPPORT EQUIPMENT. MAJOR EQUIPMENT AND FACILITIES ARE FILAMENT WINDING MACHINES, TENSILE TESTERS, VIBRATION TESTER, SMALL BALLISTIC RANGE, CALIBRATION LAB, ENVIRONMENT CHAMBER, ATOMIC ABSORPTION SPECTROMETER, TELEMETER GROUND STATION, NON-DESTRUCT TESTING FACILITY, AND FLIGHT SAFETY LAB.

INSTALLATION: AVIONICS R & D ACTIVITY

FT. MONMOUTH, N.J.

CDR. COL DARROLD GARRISON

DEP DIR. MR. DAVID GAGGIN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	20.679	24.522
TOTAL PROCUREMENT	4.194	3.545
TOTAL O&M	5.884	4.817
TOTAL OTHER	1.080	0.960
TOTAL ANNUAL LAB	31.837	33.844
TOTAL INHOUSE	12.632	13.382
TOTAL INHOUSE RDT&E	5.723	6.924
ANNUAL OPERATING COST	4.729	5.162

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	17	0	10	7
CIVILIAN	267	7	149	118
TOTAL	284	7	159	125

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	52.450	13.665	19.100	85.215	0.000	11.080

...MISSION

RESPONSIBLE FOR THAT PORTION OF AVSCOM'S MISSION WHICH PERTAINS TO AVIONICS FROM RESEARCH THRU FIRST-TIME PRODUCTION. THIS ENCOMPASSES: SYSTEMS ARCHITECTURE FAVIONICS HARDWARE (I.E. COMM NAV, IMAGE & SIGNAL PROCESSING, AIRBORNE CMD & CONT); & SYS ENGINEERING/INTEGRATION

...CURRENT IMPORTANT PROGRAMS

ARMY DIGITAL AVIONICS SYSTEM.
INTEGRATED COMMUNICATIONS, NAVIGATION, IDENTIFICATION, AVIONICS
DIGITAL AUDIO DISTRIBUTION SYSTEM
AIRBORNE TARGET HANDOFF SYSTEM.
HIGH RELIABILITY INERTIAL REFERENCE UNIT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT INCLUDES DIGITAL HOT BENCH, AUTOMATED DATA COLLECTION AND REDUCTION EQUIPMENT, AND AUDIO/DIGITAL ANALYZERS.
FACILITIES INCLUDE ACOUSTIC/AUDIO ANALYSIS FACILITY, TACTICAL AVIONICS SYSTEM SIMULATOR (TASS), SYSTEM TEST BED FOR AVIONICS RESEARCH (STAR), COMPUTER AIDED DESIGN/ENGINEERING, (CAD/E) FACILITY, AVRADA PRODUCT ASSURANCE AND COMPUTATION FACILITY, ADJACENT HELIPORT, PLANNED POST DEPLOYMENT SOFTWARE SUPPORT CENTER.

DIR. MR. ROBERT J. EICHELBERGER

DEP DIR/CDR. COL JAMES V. WASSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	61.026	115.403
TOTAL PROCUREMENT	3.084	1.746
TOTAL O&M	1.843	0.733
TOTAL OTHER	13.774	3.043
TOTAL ANNUAL LAB	79.677	120.925
TOTAL INHOUSE	62.395	66.367
TOTAL INHOUSE RDT&E	47.431	61.611
ANNUAL OPERATING COST	13.200	13.504

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	25	1	9	16
CIVILIAN	743	107	435	308
TOTAL	768	108	444	324

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1920	374.397	117.830	58.044	545.271	19.085	52.761

...MISSION

ARMY LEAD LAB FOR BALLISTIC TECHNOLOGY, VULN, VULN REDUCTION, CHARGED PARTICLE BEAM TECH AND LIQUID PROPULSION TECH GUNS. MAINTAIN WEAPONS ORIENTED FUND. RSCH. PROG. RELATED TO ARMY NEEDS. CONDUCT EXPLORATORY DEV. EFFORTS TO SOLVE MILITARY PROBLEMS AND EVAL. SOLUTION FEASIBILITY.

...CURRENT IMPORTANT PROGRAMS

ANTI-ARMOR WARHEADS AND KINETIC ENERGY PENETRATORS.
BALLISTIC PROTECTION TECHNOLOGY FOR US MATERIEL.
LIQUID PROPULSION TECHNOLOGY GUNS.
VULNERABILITY ANALYSIS. VULNERABILITY REDUCTION.
MUNITION SURVIVABILITY ANALYSES AND ENHANCEMENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LASER DIAGNOSTIC FACILITY FOR PROPELLANT FLAME ANALYSIS; COMPUTED TOMOGRAPHY FOR BALLISTIC EVENTS; PROPELLANT FRACTURE MECHANICS ANALYSIS FACILITY; INSTRUMENTED INDOOR AERODYNAMIC FLIGHT RANGES FOR PROJECTILES UP TO 8"; THREE DEGREE-OF-FREEDOM FLIGHT SIMULATOR FOR SHELLS UP TO 155-MM; EXPLOSIVE MECHANICS TEST FACILITY, HIGH EXPLOSIVE CASTING AND PRESSING FACILITY; HIGH ALTITUDE BLAST SPHERE; THERMAL BLAST SHOCK TUBE TO SIMULATE NUCLEAR EFFECTS; ADVANCED TERMINAL BALLISTIC TEST FACILITY FOR ARMOR AND ANTI-ARMOR RESEARCH; ANECHOIC CHAMBER FOR MM WAVE SENSOR AND SCALE MODEL SIGNATURE RESEARCH; ION BEAM ACCELERATOR; FIELD TEST FAC. FOR WARHEAD, PENETRATOR, EXPLOSIVE AND ARMOR RSCH; HIGH SPEED AND SPARK PHOTOGRAPHY; X-RAY CINERADIOGRAPHY; COMPUTER AIDED DESIGN ENG.; AND CENTRAL SITE AND MINI COMPUTERS WITH 900 REMOTE INTERACTIVE TERMINALS.

INSTALLATION: BELVOIR R & D CENTER

FT. BELVOIR, VA.

CDR. COL DENNIS B. BULGER

TECH DIR. MR. T. W. LOVELACE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	123.801	175.372
TOTAL PROCUREMENT	124.465	54.012
TOTAL O&M	27.407	25.912
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	275.673	255.296
TOTAL INHOUSE	55.923	57.680
TOTAL INHOUSE RDT&E	37.770	40.526
ANNUAL OPERATING COST	20.278	20.133

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	66	0	53	13
CIVILIAN	1145	27	400	745
TOTAL	1211	27	453	758

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1052	350.974	186.816	267.263	805.053	19.200	38.132

...MISSION

PROVIDE THE ARMY WITH NEW AND IMPROVED COMBAT SUPPORT AND COMBAT SERVICE SUPPORT THROUGH RESEARCH, DEVELOPMENT, ENGINEERING, INITIAL ACQUISITION AND SUBSEQUENT ACQUISITION SUPPORT IN MOBILITY/COUNTERMOBILITY, ENERGY, SURVIVABILITY, AND LOGISTICS EQUIPMENT SYSTEMS

...CURRENT IMPORTANT PROGRAMS

COUNTERMINE/COUNTEROBSTACLE EQUIPMENT
FUELS AND LUBRICANTS DEVELOPMENT
TACTICAL DECEPTION DEVICES
WATER SUPPLY EQUIPMENT
PETROLEUM DISTRIBUTION SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ACOMPLISH RESEARCH DEVELOPMENT AND ACQUISITION FOR THE FOLLOWING ASSIGNED MATERIEL: COUNTERMINE EQUIP, BRIDGING EQUIP, BARRIERS FIELD FORTIFICATIONS, CAMOUFLAGE EQUIP, PHYSICAL SECURITY EQUIP, TUNNEL DETECTION EQUIP, ELECTRIC POWER EQUIP, FUELS AND LUBRICANTS, HEATERS AND AIR CONDITIONERS, WATER SUPPLY EQUIP, FUELS HANDLING EQUIP, MATERIALS EQUIP, MARINE CRAFT EQUIP, RAILWAY AND UTILITY EQUIP. FACILITIES INCLUDE SENSOR TEST AREA, RADIO FREQ ANECHOIC CHAMBER, FIRE SUPPRESSION CHAMBER, BRIDGE TEST HANGER, MBL STRESS ANALYSIS VAN, TRUCK STABILITY TILT TABLE, VEH TEST TRACKS, SHOCK + VIBRATION DYNAMICS SIM, ENVIRONMENTAL SIM, RAIL IMPACT TEST FAC, MATERIALS RSCH LAB, STILL AND MOTION PICTURE SPT, MODEL FABRICATION SHOP.

INSTALLATION: CHEMICAL R&D CENTER

ABERDEEN PROV. GR., M

CDR. BG JAMES R. KLUGH

DEP DIR. MR. B. RICHARDSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	126.116	134.328
TOTAL PROCUREMENT	23.300	34.000
TOTAL O&M	7.525	7.000
TOTAL OTHER	2.000	2.100
TOTAL ANNUAL LAB	158.941	177.428
TOTAL INHOUSE	76.174	74.675
TOTAL INHOUSE RDT&E	55.937	55.975
ANNUAL OPERATING COST	12.485	13.460

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	101	6	45	56
CIVILIAN	994	77	644	350
TOTAL	1095	83	689	406

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3471	434.009	211.091	647.417	1292.517	23.987	44.290

...MISSION

A RSCH, DEV AND ENGR LAB PROVIDING US FORCES WITH CAPABILITY TO OPERATE ON A CML/BIOL BATTLEFIELD AND DETER CML ATTACK. PROVIDE LIFE CYCLE ENGR FOR CML WEAPONS AND CML/BIOL DEFENSE. ACT AS DOD LEAD LAB FOR CML DEF/ DETERRENCE. CONDUCT SMOKE/OBSURANT TECH BASE. COORDINATE INTL PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

CB RECONAISSANCE, DETECTION AND IDENTIFICATION
INDIVIDUAL/COLLECTIVE PROTECTION
CB DECONTAMINATION AND CONTAMINATION AVOIDANCE
SMOKE OBSURANT SYSTEMS
CHEMICAL DETERRENT SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC RESEARCH; SMOKE/OBSURANT SYSTEMS; CHEMISTRY AND EFFECTS OF THREAT AGENTS; ANALYSIS AND INTEGRATION OF CML DEF SYSTEMS; RECONNAISSANCE, DETECTION, AND IDENTIFICATION; INDIVIDUAL PROTECTION; COLLECTIVE PROT; DECONTAMINATION AND CONTAMINATION AVOIDANCE; TRAINING SYSTEMS; TOXIN DEFENSE; CHEMICAL DETERRENT SYSTEMS.

MAJOR EQUIPMENT IS CONTAINED IN A COMPLEX OF ENGR/LAB AREAS. INCLUDES CML PILOT PLANTS, AEROSOL CHAMBER, MUNITION FILLING FACILITY, PRODUCTION AND FACILITY DESIGN, CHAMBER FOR STUDIES ON SPEECH TRANSMISSION, SIMULANT AGENT CHALLENGE TEST CHAMBER, RUBBER/ELASTOMER MOLD FACILITY, SPECIALIZED CHEMICAL AGENT LAB, PYROTECHNIC MIXING, LOADING, HANDLING FACILITY, COMPUTERMAN, INDOOR BALLISTIC RANGE, SUBSONIC-SUPERSONIC, TRANSONIC WIND TUNNEL.

CDR/DIR. COL M. F. ROTH

TECH DIR. DR. LLOYD BRESLAU

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	12.379	13.544
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.040	1.326
TOTAL OTHER	9.776	11.026
TOTAL ANNUAL LAB	23.195	25.896
TOTAL INHOUSE	16.482	18.452
TOTAL INHOUSE RDT&E	7.427	8.126
ANNUAL OPERATING COST	4.342	4.823

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	15	0	5	10
CIVILIAN	279	33	130	149
TOTAL	294	33	135	159

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
211	108.787	30.027	133.024	271.838	9.084	10.594

...MISSION

AS THE ARMY LAB FOR SCIENCE & TECHNOLOGY IN COLD REGIONS, THE COLD REGIONS R&E LABORATORY CONDUCTS & COORDINATES RESEARCH APPLICABLE TO THE ARMY'S NEEDS WHERE WINTER WEATHER & COLD PRESENT A SEVERE PROBLEM. MANAGE ARMY COLD REGIONS INFORMATION CENTER.

...CURRENT IMPORTANT PROGRAMS

WINTER COMBAT OPERATIONS TECHNOLOGY
IMPACT OF WINTER ENVIRONMENT ON NEW WEAPON SYSTEMS AND OTHER MATERIEL
FACILITIES CONST. OPERATIONS, & REPAIR IN TEMP & ARCTIC COLD CONDITIONS
IMPROVE WINTER NAVIGATION
DEVELOP ENVIRONMENTAL REMOTE SENSING APPLICATIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAIN LABORATORY AT USACRREL CONTAINS 24 COLD LABS WHICH CAN BE OPERATED TO -58 F, SPECIAL TESTING APPARATUS FOR RESEARCH IN FROZEN MATERIAL, AN ICE ENGINEERING FACILITY FOR LARGE SCALE ICE MODELING EXPERIMENTS. A CHEMISTRY LAB, AN ELECTRON MICROSCOPE LAB, A SOILS PROCESSING LAB, A PAVEMENT TEST FACILITY FOR TESTING UNDER FREEZING/THAWING CONDITIONS, A WASTEWATER TREATMENT RESEARCH FACILITY, A COMPUTER INSTALLATION, A MASS SPECTROMETER, A GAS CHROMATOGRAPH, A SMALL LASER FACILITY. THE CRREL-ALASKA OFFICE AT FAIRBANKS CONDUCTS RESEARCH AND PROVIDES LOGISTICS SUPPORT FOR OTHER RESEARCH. USACRREL'S MILITARY AND CIVILIAN PERSONNEL HAVE EXPERTISE COVERING A WIDE RANGE OF SCIENTIFIC AND ENGINEERING DISCIPLINES RELATED TO COLD REGIONS RESEARCH. A NEW FACILITY-THE FROST EFFECTS RESEARCH FACILITY IS SCHEDULED FOR COMPLETION IN 1985.

INSTALLATION: COLD REGIONS TEST CENTER

APO SEATTLE, WA.

CDR. COL JESSE H. DENTON

TECH ADV. MR. WILLIAM J. HASLEM

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	6.501	6.466
TOTAL PROCUREMENT	0.056	0.015
TOTAL O&M	0.003	0.001
TOTAL OTHER	5.385	5.588
TOTAL ANNUAL LAB	11.945	12.070
 TOTAL INHOUSE	 11.883	 12.053
TOTAL INHOUSE RDT&E	6.501	6.466
ANNUAL OPERATING COST	5.615	5.820

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	263	0	36	227
CIVILIAN	22	0	14	8
TOTAL	285	0	50	235

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
647155	0.000	18.205	236.033	254.238	10.336	9.801

...MISSION

PLAN, CONDUCT, & REPORT THE RESULTS OF COLD REGIONS, MOUNTAIN & NORTHERN ENVIRONMENTAL PHASES OF DEVELOPMENT & OTHER TESTS; REVIEW PLANS & MONITOR DEVELOPMENT TESTING IAW INTERGRATED TESTING CYCLE POLICIES. PROVIDE ADVICE & GUIDANCE TO GOVT AGENCIES & PRIVATE IND.

...CURRENT IMPORTANT PROGRAMS

HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV)
LIGHT ARMORED VEHICLE (LAV), USMC
MODIFIED EXTENDED COLD WEATHER CLOTHING SYSTEM (MECWCS)
AIRCREW SURVIVAL ARMOR RECOVERY VEST (SARVIP)
COMPANY LEVEL FIELD FEEDING KIT (CLFFK)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITY CAN ACCOMMODATE A WIDE VARIETY & LARGE NUM TESTS AT ANY ONE TIME. SEVERAL VEH TEST COURSES & EXTENSIVE CROSS COUNTRY TERRAIN RANGES ARE AVAILABLE. 500,000 ACRE ISOLATED IMPACT AREA, 50 KM MAX UNOBSERVED RANGE, LARGE RESTRICTED AIRSPACE WITH UNRESTRICTED FIRING TO 10,000 FT ORDINATE. COORD WITH FAA CAN AFFECT UNRESTRICTED ORDINATE. 1ST, 2ND OR 3RD ORDER SURVEY POINTS. GOOD SECONDARY ROADS. PHONE/NON-TAC RADIO AT ALL RANGES & TEST SITES. AUTODIN, FACSIMILE, TELETYPE, PHOTO LAB & MAINT FOR MAJORITY OF EQUIP INCL ACFT, DS/GS CALIBRATION, LIMITED ENGR SPT. ARMY AVN & USAF ACFT CAN BE ARRANGED. METEROLOGICAL SPT AVAIL. INST FOR MOST ITEMS AVAIL, CAN OBTAIN OTHER INST. MOVING TARGET SYSTEM, EOD, STATISTICAL, MAINT EVALUATION, & HUMAN FACTORS CAPABILITIES AVAILABLE. COMPUTER FACILITY AVAILABLE. TEMPERATURES TO -50 DEG FAHR COMMON.

INSTALLATION: COMBAT SURVEILLANCE & TGT ACQUISITION LAB FT. MONMOUTH, N.J.

ACT DIR. MR. THOMAS DANIELS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	23.352	33.477
TOTAL PROCUREMENT	50.355	70.880
TOTAL O&M	3.441	2.857
TOTAL OTHER	0.045	0.001
TOTAL ANNUAL LAB	77.193	107.215
TOTAL INHOUSE	11.130	14.696
TOTAL INHOUSE RDT&E	5.499	7.999
ANNUAL OPERATING COST	5.052	5.516

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	11	0	7	4
CIVILIAN	168	3	99	69
TOTAL	179	3	106	73

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
35	81.242	12.633	0.000	93.875	0.697	5.091

...MISSION

DEVELOP, TEST, ACQUIRE AND FIELD RELIABLE, SUPPORTABLE EQUIPMENT FOR IDENTIFICATION FRIEND OR FOE (IFF), GROUND TARGET SURVEILLANCE, WEAPON LOCATION AND NUCLEAR RADIATION DETECTION AND MEASUREMENT.

...CURRENT IMPORTANT PROGRAMS

IDENTIFICATION FRIEND OR FOE (IFF) EQUIPMENT
ACOUSTIC AND RADAR SYSTEMS FOR WEAPON LOCATION
GROUND TARGET SURVEILLANCE SYSTEMS
NUCLEAR RADIATION DETECTION AND MEASUREMENT EQUIPMENT
NON-COOPERATIVE TARGET RECOGNITION (NCTR) SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE ANECHOIC CHAMBER IS USED FOR RADAR REFLECTION AND ANTENNA PATTERN MEASUREMENTS. THE NUCLEAR RADIATION FACILITY HOUSES NUCLEAR RADIATION SOURCES AND GENERATORS AND A 250 KV CONSTANT-POTENTIAL X-RAY MACHINE THAT IS USED IN MAKING ENERGY DEPENDENCE TESTS. THE ANTENNA TEST RANGE ALLOWS IN-HOUSE TESTS OF RADAR ANTENNAS AND MAKING RADAR CROSS-SECTION MEASUREMENTS AT DISTANCES FROM 100 TO 1000 FEET UTILIZING A MOBILE TOWER TELESCOPING FROM 30 TO 150 FEET IN HEIGHT. THE TARGET TURNABLE, 50 FT DIAMETER, PROVIDES A MEANS FOR CONDUCTING RADAR AND OPTICAL TARGET SIGNATURE STUDIES. THE NON-COOPERATIVE TARGET RECOGNITION (NCTR) FACILITY CONSISTING OF A TARGET TURNABLE, RANGE, TOWERS, GND/ABN RADAR TESTBEDS, VAX 11/780 COMPUTER AND LAB TEST EQUIPMENT WILL BE USED TO COLLECT AND PROCESS TARGET SIGNATURE DATA AND DEVELOP ALGORITHMS.

INSTALLATION: COMBAT SYSTEMS TEST ACTIVITY

ABER DEEN PVG GRD MD

CDR. COL RONALD V. HITE

ASSOC DIR. MR. DONALD RESCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	61.515	64.591
TOTAL PROCUREMENT	32.793	34.433
TOTAL O&M	5.431	5.703
TOTAL OTHER	15.806	16.071
TOTAL ANNUAL LAB	115.045	120.798
TOTAL INHOUSE	106.518	111.845
TOTAL INHOUSE RDT&E	56.813	59.654
ANNUAL OPERATING COST	36.568	38.396

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	182	6	38	144
CIVILIAN	802	6	333	469
TOTAL	984	12	371	613

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
22865	720.999	4.351	248.742	974.092	22.176	44.865

...MISSION

PLAN, CONDUCT & RPT TESTS ON WPNS, WPN SYS, TRACKED & WHEELED VEH,
FIRE CONTROL & TARGET ACQUISITION EQUIP, ITEMS OF AMMO & MUNITION
COMPONENTS; SPT EQUIP & AR PLATE FOR ALL DARCOM INSTLS & ACTIVITIES.
PROVIDE SPT SVC TO APG ELEMENTS & SPT COMMANDS.

...CURRENT IMPORTANT PROGRAMS

SGT YORK AIR DEFENSE SYSTEM
IMPROVED LIGHT ANTI-TANK/ASSAULT WEAPON
BRADLEY FIGHTING VEHICLE SYSTEM
ABRAMS TANK (M1)
HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST AREA 68700 ACRES. 22500M RANGE TO LAND IMPACT, 26KM RANGE TO WATER
IMPACT. 41 MILES OF AUTO COURSES INCL 27 SPECIAL ENGR TEST CRS/OBSTACLE.
VARIOUS TYPES OF ENVIRONMENT/COND EQUIP. SPECIAL CHAMBERS F/SUBJECTING
EQUIP TO DUST, SALT SPRAY OR SOLAR RADN. ISOLATED VIBRATION TEST FAC
WHICH PERMITS SHAKING EXPLO EQUIP SIMULTANEOUSLY W/TEMP COND FAC F/CON-
TROLLED TESTS OF ELEC CONTROL & GUID EQUIP. FREQ SOURCE WHICH PERMITS
TESTING ALL TYPES OF MAT IN PRESENCE OF HIGH INTENSITY ELEC MAGNETIC
RADN. SPECIAL FAC F/TEST OF AR PLATE. SPECIAL VEL & TGT EQUIP IS AVAIL
F/OBSERVATION DURING RAPID FIRE OF RKT TRACK F/CONTROLLED TERMINAL
BALLISTIC TESTS. FAC AVAIL F/TESTS OF SPECIAL ELEC & FIRE CONTROL
EQUIP & RELATED SYS & COMPONENTS. PULSE RADN FAC AVAIL FOR USE IN
RADN TEST OF NUCLEAR EFFECTS. SIMULATION REACTOR TECH & RADN PHYSICS.

INSTALLATION: COMMUNICATIONS - ELECTRONICS BOARD

FT. GORDON, GA.

PRES. COL HUMPHREY L. PETERSON, JR. ENGR ADV. MR. RONNIE E. BRACKETT

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	2.326	2.762
TOTAL PROCUREMENT	0.164	0.083
TOTAL O&M	0.174	0.470
TOTAL OTHER	2.426	2.426
TOTAL ANNUAL LAB	5.090	5.741
TOTAL INHOUSE	5.090	5.741
TOTAL INHOUSE RDT&E	2.326	2.762
ANNUAL OPERATING COST	1.150	1.245

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	55	0	51	4
CIVILIAN	34	0	12	22
TOTAL	89	0	63	26

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	0.000	20.950	0.498	21.448	0.215	1.660

...MISSION

PLANS, CONDUCTS AND REPORTS ON OPERATIONAL TESTS OT I, II, AND, III OF C-E SYSTEMS AND FORCE DEVELOPMENT TESTING AND EXPERIMENTATION AS PUBLISHED IN THE DA FIVE YEAR TEST PROGRAM. CONDUCTS CONCEPT EVALUATION PLANS AND OTHER USER-RELATED/CUSTOMER TEST DIRECTED BY TRADOC

...CURRENT IMPORTANT PROGRAMS

TACTICAL ARMY CSS COMPUTER SYSTEM, TACCS
UNIT LEVEL LOGISTICS SYSTEM, ULLS
TANDEM AUTOVON SWITCH, SB-3614
FIBER OPTICS TRANSMISSION SYS, LONG HAUL
ARMY DARPA DISTRIBUTED COMMUNICATIONS PROCESSING EXPERIMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANUAL AND AUTOMATED STIMULUS AND MEASUREMENT EQUIPMENT THAT PROVIDES DATA COLLECTION AND ANALYSIS CAPABILITY OF COMMUNICATIONS-ELECTRONICS CIRCUITS, EQUIPMENT, AND SYSTEMS

INSTALLATION: COMMUNICATIONS - ELECTRONICS R & D CENTER FT MONMOUTH, N.J.

CDR. MG ROBERT D. MORGAN

TECH DIR. MR. THEODORE PFEIFFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	124.260	110.893
TOTAL PROCUREMENT	8.126	3.370
TOTAL O&M	7.765	3.011
TOTAL OTHER	1.440	1.500
TOTAL ANNUAL LAB	141.591	118.774
TOTAL INHOUSE	38.287	42.641
TOTAL INHOUSE RDT&E	30.880	38.475
ANNUAL OPERATING COST	4.167	3.958

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	36	0	21	15
CIVILIAN	436	17	337	99
TOTAL	472	17	358	114

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	39.506	98.975	6.485	144.966	0.000	23.150

...MISSION

CONDUCT RSCH, EXPL, ADV & ENGR DEV OF COMM. EQUIP & SYSTEMS, MILITARY COMPUTER EQUIP & SYSTEMS, & COMPUTER SOFTWARE. CONDUCT SYSTEMS ENGR FOR TACTICAL COMMAND, CONTROL & COMM. SYSTEM DESIGN. PROVIDE FOR PROD, DIST, & DEL OF DOCTRINAL, INSTRUCTIONAL & TECHNICAL MATERIALS.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF ADA LANGUAGE SYSTEM (ALS)
ARTIFICIAL INTELLIGENCE (AI)
COMMAND CONTROL AND COMMUNICATION (C3) SYSTEM DESIGN
NINTH INFANTRY DIVISION (9TH ID) SUPPORT
TRANSMISSION TECHNOLOGY ADVANCES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TELEPROCESSING DESIGN CENTER
EXPERIMENTAL DISTRIBUTED PROCESSING FACILITY
SOFTWARE DEVELOPEMENT SUPPORT SYSTEM
TACTICAL DATA BASE MANAGEMENT SYSTEM
INTEROPERABILITY TEST CENTER
SYSTEM SIMULATION FACILITY
COMMUNICATIONS SYSTEM DESIGN CENTER
ACOUSTIC RESEARCH LABORATORY
HF CHANNEL SIMULATOR

INSTALLATION: CONSTRUCTION ENGINEERING RESEARCH LAB

CHAMPAIGN, IL.

CDR/DIR. COL PAUL J. THEUER

TECH DIR. DR. L. R. SHAFFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	25.123	27.852
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	5.057	5.185
TOTAL OTHER	0.393	0.893
TOTAL ANNUAL LAB	30.573	33.430
TOTAL INHOUSE	14.004	13.756
TOTAL INHOUSE RDT&E	12.537	12.252
ANNUAL OPERATING COST	1.882	2.000

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	5	0	6	1
CIVILIAN	213	28	140	73
TOTAL	218	28	146	74

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
31	45.876	33.149	19.420	98.445	10.000	6.858

...MISSION

PLAN & EXECUTE RESEARCH TO OBTAIN THE BEST COMBINATION OF ENGINEERING DESIGN, CONSTRUCTION, OPERATIONS & MAINTENANCE TO PROVIDE FACILITIES FOR THE MIL ESTABLISHMENT & OTHER AGENCIES AT LEAST COST & TO DISSEMINATE THE RESEARCH RESULTS

...CURRENT IMPORTANT PROGRAMS

DEVELOP ENERGY CONSERVATION TECHNIQUES/PROCEDURES FOR MIL INSTALLATIONS
DEVELOP COMPUTER AIDED SYSTEMS FOR PLANNING AND DESIGN
DEVELOP IMPROVED SYSTEMS FOR RPMA OF MIL FACILITIES
DEVELOP SYSTEMS FOR ENVIRONMENTAL QUALITY MGMT
ADAPT ALTERNATE FUELS TECHNOLOGY FOR MIL FACILITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONTROLLED ENV CHAMBERS; ION PLATING UNIT; 1000000-PD CLOSED-LOOP MTRL TEST SYT; SCANNING ELECTRON MICROSCOPE; SEMI-AUTO WELDING EQMT; BI-AXIAL SHOCK TEST MACHINE; NON-DEST TESTING FAC; VACUUM INDUCTION FURNACES; METALLOGRAPHIC SAMPLE PREP; METALLOGRAPH X-RAY DIFFRACTION AND VACUUM SPECTROSCOPY SYT; DYNAMIC TENSION ANALYSIS SYT; DIGITAL RECORDING ANAL REQMT; AND HVAC TEST FACILITY CAPABILITIES INCLUDING SYSTEMS BLDG METHOD AND TECHNIQUES; COMPUTER-BASED DESIGN & CONST MGMT TECHNIQUES; ENERGY SYTS DESIGN; ENERGY CONSERVATION & ALTERNATE FUELS; HARDENED FACILITIES ANALYSIS; ENV QUALITY MGMT; POLLUTION CONTROL ABATEMENT; MIL HOUSING SYTMS; TRAINING-AREA MAINTENANCE & MGMT; MOBILIZATION FACILITIES; QUALTY OF LIFE & ARCHITECTURAL RESEARCH; & ELECTROMAGNETIC PULSE INTERFACE RESEARCH.

INSTALLATION: DUGWAY PROVING GROUND

DUGWAY, UT.

CDR. COL DAVID A. NYDAM

SCI DIR. DR. LOTHAR L. SALMON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	30.792	40.502
TOTAL PROCUREMENT	0.000	1.148
TOTAL O&M	2.048	1.506
TOTAL OTHER	26.262	25.147
TOTAL ANNUAL LAB	59.102	68.303
TOTAL INHOUSE	41.140	54.260
TOTAL INHOUSE RDT&E	21.230	30.545
ANNUAL OPERATING COST	14.606	15.000

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	148	2	21	127
CIVILIAN	539	12	75	464
TOTAL	687	14	96	591

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
840911	104.875	201.133	1643.266	1949.274	74.999	32.937

...MISSION

DPG PLANS & CONDUCTS APPROVED TESTS TO ASSESS THE MILITARY VALUE OF CML WEAPONS, SMOKE/OBSCURANTS & CML-BIO DEF SYS. TESTS SPT R&D & PROVIDE BASIS FOR DEVELOPMENT OF NEW OPERATIONAL & LOGISTICAL CONCEPTS FOR EMPLOYMENT OF TESTED SYS. TESTS ARE RESPONSIVE TO USER REQUIREMENTS,

...CURRENT IMPORTANT PROGRAMS

CONDUCTS SERVICE DEV CML CML-BIO DEFENSE SMOKE/OBSCURANT TEST PROGRAMS
CONDUCTS R & D & LAB INVESTIGATIONS NECESSARY TO SUPPORT MISSION
CONDUCTS JT OP CML & CML-BIO DEFENSE TESTS/STUDIES FOR CINCS, SERVICES
CONDUCTS PROG TO SUP ARMY POLL ABATEMENT HAZARD EVAL & DEMIL OPNS
CONDUCTS ECOLOGICAL EPIDEMIOLOGICAL & TOXICOLOGICAL SURVL OF DPG AREA

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INST GRIDS FOR CML CML-BIO TESTS: ARTY RG FOR CONVL & CML METAL PARTS, BALLISTIC & DISSEM TESTS WITH FIELD SMPL, SMPL MASS ANAL, MET (AUTO DATA ACQ & MESOMET NETWK) SYS. TSPI (RADAR SLAVE PHOTO) SYS; PHYS & EVNIRON TEST FAC (MIL SPEC 810) CHAMBERS FOR TOTAL AGENT CONTAINMNT; EXPLO SHIELDING PROPAGATION & OVERPRESSURE MEASMNTS, OPNS SPTD BY MET RSCH ON BEHAVIOR OF CLOUDS; CML, LIFE SCI TECHN, ECOL SURVL OF DPG; CAPBL FOR PLANNING ANAL, EVAL OF TESTS, OPNS RSCH; LABS EQUIPD FOR WIDE RNG OF CML, MCROBIOL, TOXICOL, IMMUNOL, ECOL, EPIDEMIO, POLL CNTL STUDIES; CAPBL FOR PROD BIO SIMUL AG; TECHN & MASS ASSAY OF FLOURESCENT AIR TRACERS; EXTENSIVE COMM & RG SAFETY SYS. OUTSTANDING ARE LARGE LAND AREA, RESTRICTED AIR SPACE, LONG & FLAT ARTY RANGES, PROJECTILE RECOVERY, SONIC & ELECTROMAG STERILITY, DIVERSE SKILLS.

INSTALLATION: ELECTRONIC PROVING GROUND

FORT HUACHUCA, AZ

CDR. COL WILLIAM R. HARNAGEL

TECH DIR. MR. GRADY H. BANISTER, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	39.604	43.085
TOTAL PROCUREMENT	4.251	4.944
TOTAL O&M	0.933	1.130
TOTAL OTHER	10.961	11.500
TOTAL ANNUAL LAB	55.749	60.659
TOTAL INHOUSE	36.938	39.924
TOTAL INHOUSE RDT&E	22.970	24.850
ANNUAL OPERATING COST	11.907	13.241

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	605	0	18	587
CIVILIAN	212	0	81	131
TOTAL	817	0	99	718

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
67000	0.150	38.597	232.153	270.900	8.100	31.300

...MISSION

PLAN, CONDUCT, EVALUATE AND REPORT ON DEVELOPMENT AND OTHER ENGINEERING. LAB-TYPE TESTS OF GROUND AND AIRBORNE EQUIPMENT AND SYSTEMS THAT UTILIZE ELECTRONIC/ELECTROMAGNETIC TECHNOLOGY. MAINTAIN MODERN TEST FACILITY, INSTRUMENTATION, AND METHODOLOGY CAPABILITY.

...CURRENT IMPORTANT PROGRAMS

ARMY HELICOPTER IMPROVEMENT PROGRAM (AHIP)
 REMOTELY PILOTED VEHICLE (RPV)
 FACILITY INTRUSION DETECTION SYSTEM (FIDS)
 MODULAR INTEGRATED COMMUNICATIONS AND NAVIGATIONS SYSTEM (MICNS)
 MANPACK RADIO DIRECTION FINDING SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT TESTS OF HDWR/SOFTWARE, DOCTRINAL CONCEPTS/SCENARIOS. TEST CAPABILITY INCL TEST OF COMM, IMAG, IMAGERY INTERPRETATION MET, RADIAC, RDR, LASER INTEL, EW, CMD/CTRL, PWR SOURCES, RPV, GND&SCTY SENSORS SYS. EQUIP INCL EMC, EMI, EMV, ECM, ECCM, TEMPEST AND INTRA/INTEROPERABILITY ANAL AS REQ. TECHNIQUES INCL BENCH AND FLD TEST W/ACCESS TO EXTENSIVE REAL EST. MATH MDL AND SIM FACS INCL: EM, CLIMATIC/STRUCT ENVIRON, INSTRUMENTED SPACE POS RG (3 FPS-16/CAPRI), TEMPEST. C3I SYS TEST INCL A REALISTIC EM BATTLEFIELD, ANTENNA PATTERN, ELECTRO-OPT AND VARIOUS ENVIRON FACILITIES INCL NUC, PERFORM RELIABILITY, AVAILABILITY AND MAINTAINABILITY (INCLUDE MAINT MANUALS, REPAIR PARTS, SPECIAL TOOLS), SAFETY AND HFE TEST. CONDUCT/PARTICIPATE IN RELATED DOCTRINAL AND CONCEPT STUDIES, AND TEST FOR ARMY, OTHER SERVICES AND DOD AGENCIES.

DIR. MR. ROBERT GIORDANO

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	126.652	119.801
TOTAL PROCUREMENT	112.814	181.482
TOTAL O&M	6.261	18.493
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	245.227	319.776
TOTAL INHOUSE	38.745	44.538
TOTAL INHOUSE RDT&E	28.957	26.903
ANNUAL OPERATING COST	6.644	6.247

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	86	0	61	25
CIVILIAN	413	8	362	51
TOTAL	499	8	423	76

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6	210.936	43.877	109.138	363.951	9.500	59.260

...MISSION

RESEARCH, DEVELOPMENT, INITIAL ACQUISITION, AND FIRST FIELDING OF NON-COMMUNICATIONS AND SELECTED COMMUNICATIONS EQUIPMENT. DEVELOPMENT OF ELECTRONIC COUNTER-COUNTERMEASURES RECOMMENDATIONS AND TECHNIQUES.

...CURRENT IMPORTANT PROGRAMS

PROD OF SIGINT EQPT, E.G., QUICK LOOK, GUARDRAIL, TEAMPACK
DEVELOP ECM AND WARNING EQPT FOR SELF PROTECTION OF COMBAT VEHICLE.
EW VULN INVESTIGATIONS OF MISSILE SYS E.G., PATRIOT, ROLAND AND DIVAD.
DEVELOPMENT, INITIAL ACQUISIT, FIRST FLDING EW AND RELATED INTL MATERIAL
DEV EW SYS TO ENHANCE EFFECT & SURVIV AIR DEFENSE ART UNITS E.G. ADEWS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ELECTRONIC INTELLIGENCE (ELINT) ANECHOIC CHAMBER.
SIMULATED ECM TECHNIQUES EVALUATOR (SECTER).
ELECTRO-OPTICAL COUNTERMEASURES (EOCM) SIMULATOR.
EOCCM SIMULATOR.
INFRARED MEASUREMENTS AND DATA REDUCTION FACILITY.
BIG CROW.
MOBILE ELECTRONIC WARFARE VULNERABILITY/ECCM TEST VAN.
EARLE WAYSIDE TEST SITE.
GRAPHICS ANALYSIS SYSTEM (OMEGA).
SIMULATED ELECTRONIC COUNTER-COUNTERMEASURES TECHNIQUE EVALUATOR.
ULTRAVIOLET/INFRARED (UV/IR) SCENE GENERATOR.

DIR. DR. C. G. THORNTON

TECH DIR. MR. ROBERT G. LAUTTMAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	76.536	89.631
TOTAL PROCUREMENT	3.134	0.000
TOTAL O&M	1.066	0.687
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	80.736	90.318
TOTAL INHOUSE	31.531	26.617
TOTAL INHOUSE RDT&E	28.023	26.230
ANNUAL OPERATING COST	4.309	5.378

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1	0	1	0
CIVILIAN	291	36	177	114
TOTAL	292	36	178	114

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	81.909	5.537	4.467	91.913	0.000	17.000

...MISSION

DEV, MAINTAIN AN UPGRADED BASE IN ELEC TECH & DEVICES TO SUPPORT NEXT GEN OF ARMY COMBAT SYSTEMS; MAINTAIN ARMY'S PRINCIPAL FACILITIES IN ELEC MATLS SYNTHESIS & CHARACTERIZATION, ICS & PULSE PWR CONDITIONING; EXECUTE INNOVATIVE PRGRMS IN MICROELEC, MMW & MW DEVS; PWR SOURCES.

...CURRENT IMPORTANT PROGRAMS

MMW TO PENETRATE OBSCURANTS & GUIDE SMALL DIAMETER MUNITIONS.
ULTRA-HI SPEED SIGNAL PROCESSING FOR REAL TIME & DEEP TARGET ASSESSMENT.
LIGHTWEIGHT, EFFICIENT, PORTABLE BATTLEFIELD POWER SOURCES.
INTERACTIVE TERMINALS & DISPLAYS.
PULSE POWER CONDITIONING FOR DIRECTED ENERGY WEAPONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVS, ELEC TUBES, DISPLAY DEVS, HIPWR/HIVOLTAGE SVBSYSTEMS & ADV ELEC MATLS, MATERIAL ANALYSIS & DIAGNOSTCS CENTER FOCUSES ON THE PHYSICAL & CHEMICAL ASPECTS OF NEW MATERIALS & PROCESSES—SURFACE CHARACTERISTICS, RADIATION HARDNESS, CONTAMINANT IDENTIFICATION, CHEMICAL COMPOSITION, LAYER THICKNESS, DOPING PROFILES & THE LIKE.
SYNTHESIS RSCH CNTR STRESSES HIGH MOBILITY III-V SEMICONDUCTOR MATLS & DEVICES FOR EXTREMELY HIGH SPEED SIGNAL PROCESSING & MMW SYSTEM APPLIC ATIONS. STUDY INCLUDES EXTREMELY HIGH PURITY MATERIALS, NEW LITHOGRAPHY FOR ULTRA-SMALL DEVICES, & NOVEL QUATUM-WELL DEVICE APPLICATIONS.
MICROELECTRONICS CENTER PROVIDED PAOTOLITHOGRAPHY FOR NOVEL MM-WAVE DEVICES & RESEARCH STRUCTERS, DESIGN SUPPORT FOR NAVY TEWS, DESIGN & FAB OF POCKET RADIAC PROTOTYPE; & SECOND GENERATION FIBER-OPTIC INTERFACE.

CDR. COL EDWARD K. WINTZ

DIR. MR. WALTER E. BOGE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	50.909	53.534
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.594	2.594
TOTAL OTHER	0.661	0.715
TOTAL ANNUAL LAB	54.164	56.848
TOTAL INHOUSE	14.847	17.874
TOTAL INHOUSE RDT&E	12.377	15.157
ANNUAL OPERATING COST	3.600	4.027

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	1	7	7
CIVILIAN	291	17	198	93
TOTAL	305	18	205	100

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
33	90.722	7.000	13.300	111.022	6.000	12.000

...MISSION

RESEARCH AND DEVELOPMENT IN TOPOGRAPHIC SCIENCES, MAPPING, POINT POSITIONING, AND GEOGRAPHIC INFORMATION, OPERATIONAL SUPPORT TERRAIN ANALYSIS, AND SCIENTIFIC/ADVISORY SERVICES. REMOTE SENSING, COMPUTER TECHNOLOGY, AND ENVIRONMENTAL EFFECTS DATA.

...CURRENT IMPORTANT PROGRAMS

SUPPORT TO THE ARMY SPACE PROGRAM
DIGITAL TOPOGRAPHIC SUPPORT SYSTEM
MODULAR AZIMUTH AND POSITIONING SYSTEM
SUPPORT TO THE DEFENSE MAPPING AGENCY
SUPPORT TO THE DARPA STRATEGIC COMPUTING PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE A CARTOGRAPHIC LABORATORY TO STUDY THE PROBLEMS ASSOCIATED WITH HANDLING DIGITAL CARTOGRAPHIC DATA, A DIGITAL-IMAGE PROCESSING LABORATORY TO STUDY THE MANIPULATION AND ENHANCEMENT OF TERRAIN IMAGERY FOR OBTAINING MAPPING AND GEOGRAPHIC DATA, COMPUTER ASSISTED PHOTO-INTERPRETATION STATION FOR EXPERIMENTAL EXTRACTION OF TERRAIN FEATURES, AND AN ARTIFICIAL INTELLIGENCE TEST BED FOR USE IN TERRAIN FEATURE EXTRACTION AND EXPLOITATION EXPERIMENTS. COMPUTATIONAL EQUIPMENT INCLUDES THE CDC CYBER 170/730, GOODYEAR STARAN S-1000, DEC PDP 1150 AND PDP 1170 AND DEC VAX MODELS 750 AND 780. OTHER SPECIALIZED EQUIPMENT INCLUDE COMTALS, PDS DIGITAL AUTOMATED MICRODENSITOMETERS, AND PRECISION MENSURATION EQUIPMENT.

INSTALLATION: ENGINEER WATERWAYS EXPERIMENT STATION

VICKSBURG, MS.

CDR/DIR. COL TILFORD C. CREEL

TECH DIR. MR. F. R. BROWN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	37.409	46.740
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.274	2.955
TOTAL OTHER	58.052	59.045
TOTAL ANNUAL LAB	97.735	108.740
TOTAL INHOUSE	81.138	89.775
TOTAL INHOUSE RDT&E	31.594	40.140
ANNUAL OPERATING COST	8.974	9.500

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	19	0	19	0
CIVILIAN	1507	104	611	896
TOTAL	1526	104	630	896

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3246	1743.808	353.645	176.809	2274.262	41.186	48.586

...MISSION

MIL & CIV FUNDED RSCH, DEV & INVES IN HYD, ECOLOGY, COASTAL ENGR, PAVEMENTS, SOIL, EXPLO WPN EFF, EXPLO EXCAVATION, VEH MOBILITY, COUNTERMOBILITY, ENV ASPECTS OF MIL OPERATIONS. OPERATE TECH LIBRARY, GOVT CEMENT POZZOLAN TEST PROG. SERVES TOTAL ARMY, AF, NAVY, DNA, DOE, EPA & OTHER FED AGENCIES

...CURRENT IMPORTANT PROGRAMS

HYD & MATH MODELING TO SOLVE RIVER, TIDAL, WINDWAVE, ECOLOGICAL & STRUC PROBS. RSCH ON VEH MOBILITY, REMOTE SENSING, ENV. IMPACT & EARTHQUAKE DES. CRIT. NUC & HE RSCH TO DEV CRIT FOR DES PROTECT STRUC, BARRIERS & EXCAVATIONS. RSCH & DEV NEW & IMPROVED ENG DES. CRITERIA FOR ROADS, STORAGE & AIRFIELDS. RSCH & DEV OF CEMENT MATLS AND RSCH OF MASS AND STRUCTURAL CONCRETE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PERFORM GEN INVEST IN FLDS OF HYD, SOIL & ROCK MECH, CONCRETE, MIL. VEH. MOBILITY, WPN EFF, ECOLOGY, COASTAL ENGR, MINE/COUNTERMINE, CAMOUFLAGE, PROTECTIVE STRUC, MATLS & EQUIP TESTING, STRUC & PAVEMENT DESIGN, EARTHQUAKE ENGR, AQUATIC PLANT CONT. WES CONTAINS BLDGS, TEST SITES, SPECIAL & OTHER PLANT SUPPORT EQUIP, TEST SITES & FAC FOR SPECIAL TESTS ARE MAINT? AT OTHER AREAS ON LEASE BASIS. FAC INCLUDE HYD FLUMES, WAVE GENERATORS, STATE-OF-THE-ART SOILS, CONC, CHEM, CALIB, COMP. CONTROLLED ENV & LIMNOLOGY LABS, X-RAY DIFFRACTION & SPECTROSCOPY EQUIP, BLAST LOAD FAC, NUMERICAL & PHYSICAL MODELING CAPABILITIES IN HYD & STRUC ENGR. MOBILITY RSCH FAC., IM LB DYNAMIC LOADER, SINGLE & MULTIPLE WHEEL LOAD CARTS, SURFACE BLAST EFF. FAC, HIGH AND LOW FREQ VIBRATORS; ELECTROBEAM MICROSCOPE LARGE SCALE COMPUTER FAC, TECH LIBRARY; PRINTING PLANT.

INSTALLATION: FIELD ARTILLERY BOARD

FT.SILL,OK.

PRES. COL C. S. NOBLES

TECH DIR. MR. JASPER GRIGG

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	3.269	3.620
TOTAL PROCUREMENT	0.082	1.020
TOTAL O&M	2.542	0.369
TOTAL OTHER	3.127	3.860
TOTAL ANNUAL LAB	9.020	8.369
 TOTAL INHOUSE	 9.020	 8.369
TOTAL INHOUSE RDT&E	3.269	3.620
ANNUAL OPERATING COST	0.325	0.325

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	123	0	24	99
CIVILIAN	50	0	6	44
TOTAL	173	0	30	143

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	13.790	38.080	16.939	68.809	0.000	3.627

...MISSION

PLAN CONDUCT AND REPORT ON OT I OT II AND OTHER USER-TYPE TESTS
 PARTICIPATE IN DT I AND DT II AS DIRECTED
 PROVIDE ADVICE TO PROPONENT AGENCIES AND DEVELOPERS
 CONDUCT OTHER TESTS AND EVALUATIONS AS DIRECTED BY TRADOC

...CURRENT IMPORTANT PROGRAMS

OPERATIONAL TEST II M109E4 (HELP)
 OPERATIONAL TEST II XM40 PROTECTIVE MASK
 OPERATIONAL TEST II L119 LIGHT DIVISION HOWITZER
 OPERATIONAL TEST II M109E5 HIP
 OPERATIONAL TEST II TACFIRE VERSION VI

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TWO MET STATIONS
 TEST ITEMS ADDITIONAL SUPPORT IS OBTAINED FROM USAFACFS WHEN NEEDED

INSTALLATION: FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB DOVER, N.J.

CDR/DIR. COL R. R. ROSS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	44.850	63.000
TOTAL PROCUREMENT	60.436	62.000
TOTAL O&M	11.931	11.500
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	117.217	136.500
TOTAL INHOUSE	87.966	94.000
TOTAL INHOUSE RDT&E	26.200	31.500
ANNUAL OPERATING COST	14.100	15.000

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	18	0	12	6
CIVILIAN	661	25	435	226
TOTAL	679	25	447	232

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6	167.247	103.974	4.576	275.797	9.768	28.985

...MISSION

ACCOMPLISH EXPLORATORY RESEARCH, ADVANCED AND ENGINEERING DEVELOPMENT. LIFE CYCLE TECH RESPONSIBILITY FOR FIRE CONTROL AND ALL WEAPON SYSTEMS, AMMUNITION, AUXILIARY ITEMS THROUGH 40MM CAL. FIRE CONTROL INCLUDES ALL COMBAT VEHICLES, FIELD ARTILLERY, HELICOPTERS, AIR DEFENSE AND INFANTRY

...CURRENT IMPORTANT PROGRAMS

JOINT SERVICES SMALL ARMS PROGRAM JSSAP
FIRE CONTROL AND SMALL CALIBER ARMAMENTS TECHNOLOGY
25MM MULTI-PURPOSE AMMUNITION
SGT YORK AIR DEFENSE GUN SYSTEM FORMERLY DIVADS SUPPORT
RESEARCH IN SMALL CALIBER AND FIRE CONTROL TECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LABORATORY CONDUCTS RESEARCH/EXPLORATORY, ADV AND ENGINEERING DEVELOPMENT IN SMALL CALIBER WEAPON SYSTEMS AND FIRE CONTROL SYSTEMS. IT MAINTAINS TEST BED FACILITIES TO EVALUATE SYSTEMS IN AREAS OF FIRE CONTROL, AIR DEFENSE AND COMBAT VEHICLES. LAB HAS CAPABILITY FOR DESIGN AND EVALUATION OF OPTICAL, ELECTRO-OPTICAL & ELECTROMAGNETIC SYSTEMS, SIGHTING DEVICES, DIGITAL AND ANALOG SIGNAL PROCESSORS, GUN/TURRET STABILIZATION AND CONTROL SYSTEMS, SMALL CALIBER WEAPONS INCLUDING AUTOMATIC CANNONS, WEAPON MECHANISMS, MOUNTS, PROJECTILES, PENETRATORS, SHAPED CHARGE LINERS, PROPELLANTS, PRIMERS, CARTRIDGE CASES, METAL & PLASTIC MATERIALS & ADHESIVES, & MANUFACTURING TECHNOLOGY. JOINT SERVICE SMALL ARMS PROGRAM HAS RESPONSIBILITY FOR ALL SMALL ARMS CONVENTIONAL AND SPECIAL WEAPONS SYSTEMS FOR ALL USERS.

DIR. DR. LOUIS CAMERON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	80.496	78.592
TOTAL PROCUREMENT	73.506	81.422
TOTAL O&M	8.615	8.107
TOTAL OTHER	18.239	17.829
TOTAL ANNUAL LAB	180.856	185.950
TOTAL INHOUSE	85.988	84.448
TOTAL INHOUSE RDT&E	48.216	46.735
ANNUAL OPERATING COST	18.241	18.879

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	6	1	5	1
CIVILIAN	1179	46	368	811
TOTAL	1185	47	373	812

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2316	507.829	112.019	121.840	741.688	53.921	50.064

...MISSION

MISSION: ELECTRONIC FUZES, NUCLEAR WEAPONS EFFECTS TECHNOLOGY, SPECIAL RADAR TECH'Y AND SYSTEMS, ELECTRONICS TECH'Y, COMPONENTS, CIRCUITS AND MATERIALS, FLUIDIC COMPONENTS AND SYSTEMS, ELECTRO-OPTICAL DEVICES. SELECTED INSTRUMENTATION/SIMULATORS, COUNTERMEASURES (CM) AND COUNTER-CM

...CURRENT IMPORTANT PROGRAMS

CURRENT SIGNIFICANT PROGRAMS: DEV OF XM818E1 FUZE FOR PATRIOT MISSILE R&D ON FLUIDICS, ORDNANCE ELECTRONICS, NUCLEAR WEAPONS EFFECTS AND NMW DEV OF XM445 FUZE FOR MLRS, HIGH POWER MICROWAVE TECH, VISTA TECHNOLOGY DEV OF XM749/M735 FUZES FOR 155MM NUCLEAR ART'Y, DEV OF ART'Y DELIVERED EXPENDABLE JAMMERS; VEHICULAR NAVIGATION SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT AND FACILITIES:

NUCLEAR FACILITIES: GAMMA RAY SIMULATOR (AURORA), HIGH INTENSITY FLASH X-RAY (HIFX), COBALT 60, ELECTROMAGNETIC PULSE SIMULATORS.

ELECTRONIC DESIGN FACILITIES: THICK FILM HYBRID CIRCUIT FACILITIES, MICROWAVE ANECHOIC CHAMBERS

FUZING FACILITIES: ARTILLERY SIMULATORS, ENVIRONMENTAL TESTING, BLOSSOM POINT TEST AREA

DIR. DR. JOHN D. WEISZ

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	17.591	16.388
TOTAL PROCUREMENT	0.400	0.000
TOTAL O&M	0.363	0.000
TOTAL OTHER	0.879	0.000
TOTAL ANNUAL LAB	19.233	16.388
TOTAL INHOUSE	12.186	11.437
TOTAL INHOUSE RDT&E	11.051	11.437
ANNUAL OPERATING COST	2.085	2.055

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	35	1	14	21
CIVILIAN	176	17	119	57
TOTAL	211	18	133	78

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
72	111.524	7.056	21.400	139.980	10.826	8.507

...MISSION

CONDUCTS FUNDAMENTAL AND APPLIED RESEARCH IN HUMAN FACTORS ENGINEERING
 PROVIDES DIRECT DESIGN SUPPORT TO ALL MATERIEL DEVELOPMENT PROGRAMS
 SPONSORED BY DARCOM. NINETEEN DETACHMENTS AND/OR LIAISON REPRESENTA-
 TIVES HAVE BEEN ESTABLISHED AT DARCOM CMDS, CRTC AND TRADOC CTRS/SCHOOLS

...CURRENT IMPORTANT PROGRAMS

COMBAT SPT/COMBAT SVC SPT/LOG R&D
 FIRE SPT EFFECTIVENES R&D
 OPERATOR/MAINTAINER INTERFACE DESIGN-AVIATION/AIR DEFENSE
 INDIVIDUAL SOLDIER EQUIPMENT DESIGN
 CLOSE COMBAT R&D

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COMMAND POST EXERCISE FACILITY
 ACE COMPUTER FACILITY
 FIRE CONTROL RESEARCH FACILITY
 DATA ACQUISITION AND BIOTELEMETRY SYSTEM
 GAT 2M HELICOPTER SIMULATOR
 ACOUSTICAL AND ANECHOIC CHAMBER REVERBERANT ROOM
 HELFAST LOGISTICS TESTING FACILITIES
 EYE MOVEMENT MEASURING DEVICE
 SMALL ARMS TEST FIRING RANGE
 WOOD AND METAL WORKING TEST SUPPORT CAPABILITY
 HUMAN FACTORS DATA BANK
 COMMAND CONTROL SIMULATOR SYSTEM

INSTALLATION: INFANTRY BOARD

FT. BENNING, GA.

CDR. COL JOHN N. MELOY

TECH ADV. MR. PAUL W. LAVENDAR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	2.874	3.611
TOTAL PROCUREMENT	0.471	0.047
TOTAL O&M	0.051	0.074
TOTAL OTHER	2.825	2.829
TOTAL ANNUAL LAB	6.221	6.561
 TOTAL INHOUSE	 6.221	 6.561
TOTAL INHOUSE RDT&E	2.874	3.611
ANNUAL OPERATING COST	1.828	2.325

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	109	1	3	106
CIVILIAN	76	0	7	69
TOTAL	185	1	10	175

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	0.000	32.203	32.885	65.088	3.000	1.474

...MISSION

PLAN CONDUCT REPORT ON OPERATIONAL TESTS 1/2/3, FORCE DEVELOPMENT TESTS
OTHER TESTS OF EQUIPMENT & ANCILLARY ITEMS TO BE USED BY INFANTRY UNITS
FOR COMMAND, CONTROL, FIREPOWER, TARGET ACQUISITION, GROUND SURVEIL-
LANCE, FIRE CONTROL GROUND MOBILITY & TRNG & CHEMICAL/BIOLOGICAL EQUIP.

...CURRENT IMPORTANT PROGRAMS

INFANTRY SQUAD NIGHT FIGHTING EQUIPMENT
XM40 PROTECTIVE MASK AND US-10 RESPIRATOR
ANTIARMOR WEAPONS SYSTEM, AT4
XM4 CARBINE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AUTOMATED, COMPUTERIZED AUTOMATIC & SMALL ARMS WEAPONS RANGE
CLOTHING & EQUIPMENT TEST FACILITY
MANNED EVASIVE TARGET TANKS
NOVA 312 COMPUTER CAPABILITIES

INSTALLATION: INSTITUTE OF DENTAL RESEARCH

WASHINGTON, D.C.

CDR. COL THOMAS P. SWEENEY

SCI DIR. DR. GINO C. BATTISTONE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	4.854	4.820
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.961	2.803
TOTAL ANNUAL LAB	6.815	7.623
 TOTAL INHOUSE	 3.993	 5.371
TOTAL INHOUSE RDT&E	2.128	2.568
ANNUAL OPERATING COST	0.998	1.100

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	60	17	33	27
CIVILIAN	20	2	4	16
TOTAL	80	19	37	43

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
4	9.852	5.696	14.153	29.701	2.548	3.286

...MISSION

USAIDR CONDUCTS R&D ON TREATMENT OF COMBAT FACIAL INJURIES, INFECTIONS, FIELD DENTAL EMERGENCIES, SYNTHETIC AND ALLOGENIC MATERIALS FOR USE AS IMPLANTS TO REPLACE LOST HARD & SOFT TISSUE, FIELD DENTAL EQUIPMENT AND MATERIALS, AND TECHNIQUES FOR RAPID DIAGNOSIS OF CHEMICAL CASUALTIES.

...CURRENT IMPORTANT PROGRAMS

HAND-HELD ELECTRO-OPTIC DENTAL X-RAY
MICROENCAPSULATED ANTIBIOTICS
COMPUTER-ASSISTED POSTMORTEM IDENTIFICATION SYSTEM
POLYMER/MEDICAMENT AND DECALCIFIED BONE SYSTEMS FOR HUMAN IMPLANTATION
MAXILLO-FACIAL PROTECTIVE DEVICE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BUILDING 40, WALTER REED ARMY MEDICAL CENTER, WASHINGTON, DC
BUILDING 1808, PRESIDIO OF SAN FRANCISCO, CA
BUILDING 91, WALTER REED ARMY MEDICAL CENTER, WASHINGTON, DC
BUILDINGS 1801-2-4-5-10-31-32, FORT MEADE, MD
MICROSCOPES, SEM-TEM
FLUORESCENT MICROSCOPE WITH VIDEOPLAN SYSTEM
GAS CHROMATOGRAPH-MASS SPECTROMETER WITH DATA SYSTEM
IMPACT TESTER WITH COMPONENTS
CENTRAL SLIDE PROCESSING UNIT
IMAGE INTENSIFIER QUATIMET
MICRO TOME SYSTEM HARD TISSUE
LIQUID AND GAS CHROMATOGRAPHS AND ATOMIC ABSORPTION SPECTROPHOTOMETERS

INSTALLATION: INSTITUTE OF SURGICAL RESEARCH

FT.SAM HOUSTON, TX.

CDR. COL BASIL A. PRUITT, JR.

SCI DIR. DR. A. D. MASON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	3.549	3.544
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	4.655	6.667
TOTAL ANNUAL LAB	8.204	10.211
 TOTAL INHOUSE	 7.794	 10.211
TOTAL INHOUSE RDT&E	3.139	3.544
ANNUAL OPERATING COST	1.450	1.255

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	156	14	50	106
CIVILIAN	72	4	30	42
TOTAL	228	18	80	148

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	26.424	1.800	22.400	50.624	4.396	4.543

...MISSION

INVESTIGATE PROBLEMS OF MECHANICAL AND THERMAL INJURIES WITH THEIR COMPLICATIONS. CARES FOR PATIENTS WITH SUCH INJURIES.
TEACHES AND TRAINS OTHER PERSONNEL IN THE MANAGEMENT OF SUCH PATIENTS.
CONDUCTS INVESTIGATIVE STUDIES AT BOTH THE BASIC AND CLINICAL LEVELS.

...CURRENT IMPORTANT PROGRAMS

BURN INFECTION, PREVENTION AND TREATMENT
PRELIMINARY STUDIES OF LYMPHOID SUBPOPULATIONS IN A BURNED ANIMAL MODEL
INFECTION AND MICROBIOLOGIC SURVEILLANCE OF TROOPS WITH THERMAL INJURY.
ALTERATION OF HOST RESISTANCE IN BURNED SOLDIERS.
ASSESSMENT OF L-TRIIODOTHYRONINE THERAPY IN THERMALLY INJURED PATIENTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OPERATES FORTY BEDS FOR SERIOUSLY BURNED AND INJURED PATIENTS. PROVIDES CLINICAL LABORATORY SUPPORT AND RESEARCH CAPABILITIES IN THE FIELDS OF PATHOLOGY (INCLUDING USE OF AN ELECTRON MICROSCOPE), MICROBIOLOGY, EXPERIMENTAL SURGERY AND BIOCHEMISTRY. MAINTAINS AN ANIMAL COLONY, ELECTRONIC SHOP, MACHINE SHOP, SURGICAL LIBRARY AND METABOLIC CHAMBER.

CDR. COL F. PHELPS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	5.021	3.951
TOTAL PROCUREMENT	1.941	0.000
TOTAL O&M	0.080	0.381
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	7.042	4.332
 TOTAL INHOUSE	 2.040	 1.732
TOTAL INHOUSE RDT&E	2.008	1.580
ANNUAL OPERATING COST	0.868	0.900

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	86	0	63	23
CIVILIAN	31	2	14	17
TOTAL	117	2	77	40

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
10	4.000	6.627	21.667	32.294	0.616	6.205

...MISSION

PLAN, CONDUCT AND REPORT ON OT I, II, III AND OTHER USER TYPE TESTS OF TACTICAL INTEL + SECURITY MATERIAL. PARTICIPATE IN DT I, II + III TESTS AS DIRECTED. CONDUCT VULNERABILITY + OTHER CUSTOMER TESTS AS DIRECTED.

...CURRENT IMPORTANT PROGRAMS

AN/MSQ103A (TEAMPAK)
AN/ALQ156 MISSILE WARNING RADAR
AN/TPX44 CUSTOMER TEST FOR PATRIOT
AIRBORNE SURVEILLANCE SYSTEM
TACTICAL DECEPTION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EW MONITORING FAC: TRANSPORTABLE 30 FT VAN: RECEIVE 10KHZ TO 40GHZ: DF 20 MHZ TO 40GHZ: TAPE RECORDERS, SPECTRUM ANALYZERS AND OSCILLOSCOPES. ANALYSIS EQP. VULNERABILITY MOBILE TRANSMITTER "A" VAN: TRANSPORTABLE 40 FT VAN: RECEIVE 900KHZ TO 1GHZ: JAM 10KHZ TO 1GHZ WITH 1KW TRANSMITTERS: ANALYSIS EQP. VULNERABILITY MOBILE TRANSMITTER "B" VAN: TRANSPORTABLE 40 FT VAN: RECEIVE 1GHZ TO 40GHZ: JAM 1GHZ TO 40GHZ WITH 200W TRANSMITTERS: ANALYSIS EQP. NON-COMM EMITTER SIMULATOR: 8.5 TO 17.0 GHZ: 200W OUTPUT SIMULATING 20 THREAT RADARS: COMPUTER CNTL VIA DATA LINK: TRANSPORTABLE: REPROGRAMABLE. COMM EMITTER SIMULATOR: 2 TO 500 MHZ: 20W OUTPUT SIMULATING 50 THREAT COMM TYPES: CONTROL THRU SYS MICROPROCESSOR, RECORDER OR DATA LINK: TRANSPORTABLE: REPROGRAMABLE. OPERATIONAL TEST CONTROL CENTER: BLDG WILL HOUSE REALTIME RANGE CONTROL SYS FAC & DATA PROCESSING

INSTALLATION: KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS

APO SAN FRANCISCO

DIR. COL J. A. ALLRED

DEP DIR. MR. H. R. BRASWELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	162.336	170.595
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	6.385	1.915
TOTAL ANNUAL LAB	168.721	172.510
TOTAL INHOUSE	8.072	8.690
TOTAL INHOUSE RDT&E	6.257	6.775
ANNUAL OPERATING COST	0.400	0.760

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	44	0	26	18
CIVILIAN	105	1	60	45
TOTAL	149	1	86	63

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1361	0.000	209.608	2423.848	2633.456	237.550	245.980

...MISSION

PLAN MANAGE DIRECT CONTROL & COORDINATE OVERALL ACTIVITIES OF KWAJALEIN MISSILE RANGE FOR TECHNICAL & LOGISTICAL SUPPORT OF ON-SITE BMD R&D TEST TECHNICAL INSTRUMENTATION SUPPORT OF STRATEGIC OFFENSIVE WEAPON SYSTEM DEVELOPMENT & OPERATIONAL TEST. SPACE DATA COLLECTION & SURVEILLANCE

...CURRENT IMPORTANT PROGRAMS

BALLISTIC MISSILE DEFENSE, BMD R&D TESTING
USAF BMD ADVANCED STRATEGIC MISSILE SYSTEM R&D TESTING
USAF SAC MINUTEMAN II & III OPERATIONAL TESTING
USAF BMD PEACEKEEPER R&D TESTING
SPACE DETECTION & TRACKING SYS & SPACE OBJECT IDENTIFICATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ALCOR TRADEX ALTAIR & MILLIMETER WAVE RADARS, MULTISTATIC MEASUREMENT SYS, KREMS TO CONUS HIGH SPEED DATA LINK, 2AN/MPS 36, AN/FPQ19, AN/TPX42 2 SPLASH DETECTION RADARS, 3 RADOTS, 6 SUPER RADOTS, 8 BALLISTIC CAMERA 5 SPECTRAL CAMERAS PHOTO LAB, S-BAND TELEMETRY RECEIVING SYS INCL 8 AUTO TRACK ANTENNAS, 1 RELAY SYS, RECEIVE & RECORD SYS, DATA SEPARATION AND DISPLAY SYS, METEOROLOGICAL SYS, LAUNCH ORDNANCE FAC, TIMING/COUNTDOWN SYS FREQUENCY CONTROL & ANALYSIS SYS, INSTRUMENTATION CONTROL CENTER AIR TRAFFIC CONTROL SYS INCL TACAN LOW FREQUENCY HOMING BEACON & AC COMMUNICATION, CLOSED CIRCUIT TV SYS, DATA REDUCTION FACILITY & INSTRUMENTATION SYS. ACCURACY ANALYSIS CAPABILITY. GROUND PORTION OF FLIGHT TERMINATION & CONTROL SYS, INSTRUMENTED TERMINAL AREA SUPPORT AIRCRAFT, DIVING & RECOVERY CAPABILITIES & RANGE SAFETY SYSTEM.

INSTALLATION: LARGE CALIBER WEAPONS SYSTEMS LAB

DOVER, N. J.

CDR. COL A. T. CRUMPTON

TECH DIR. DR. T. DAVIDSON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	107.790	188.700
TOTAL PROCUREMENT	89.900	120.700
TOTAL O&M	9.800	10.300
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	207.490	319.700
TOTAL INHOUSE	162.877	193.800
TOTAL INHOUSE RDT&E	64.477	64.600
ANNUAL OPERATING COST	26.892	28.299

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	27	0	20	7
CIVILIAN	1734	80	1089	645
TOTAL	1761	80	1109	652

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)		OTHER	TOTAL	REAL PROP	EQUIP
	LAB	ADMIN				
15	306.072	265.224	61.317	632.613	18.441	28.363

...MISSION

MAINTAIN STRONG BASIC & EXPLORATORY TECH BASE, CONCEPT FORMULATION RDTE & SPT TO PRODUCTION FOR MUNITIONS & WPNS SYS LARGER THAN 40MM, E.G. TOWED SELF PROPL ART SYS, TANK MAIN ARM, MOTORS, RECOILESS RIFLES, MSL/RKT WHDS, FUZES, MINES, DEMOS, NONNUCL SAFING, ARMING & FUZING F/ARMY NUCL MUNS.

...CURRENT IMPORTANT PROGRAMS

HI G/HI-D SMART MUNITIONS-CONV GEOM SMART PROJ, TANK HI-G SMART MUNS.
ELECTROMAGNETIC PROPULSION.
INTEGRATED SMART ARTILLERY SYNTHESIS.
LIGHTWEIGHT ARTILLERY - LIGHTWEIGHT TOWED ARTILLERY WEAPONS.
ENERGETIC MATERIALS-HI ENERGY HI D EXPLS-ENHANCE EFFECT ANTIARMOR WHDS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ENERGETIC MATERIALS, IGNITION RHEOLOGY AND COMBUSTION. AEROBALISTICS MUNITION DEVELOP AND TEST GAS DYNASC, CLOSED BOMB, DIFFERENTIAL THERMAL ANALYSIS, PROPELLANT SURVEILLANCE EVALUATION AND TEST, HYPEVELOCITY PROPULSION, PYROTECHNIC EVALUATION AND TEST, NDT-X-RAY, LASER HOLOGRAPHY AND ULTRASONIC, SHAPE CHARGE TEST, HIGH SPEED DETONATION, EXPLOSIVE HAZARD ANALYSIS AND PERFORMANCE TEST, GUN BARREL FATIGUE TEST, BREECH MECHANISM AND BREECH BLOCK TEST: SPECIALIZED TEST AND ANALYTICAL EQUIPMENT, SUBSONIC, TRANSONIC, SUPERSONIC WINDTUNNELS ELECTROMAGNETIC LAUNCHER CAPABLE OF DELIVERING 3 TO 5 GIGAWATTS, REAL POWER MACHINE MODEL SHOPS. THESE RESOURCES ARE CONTAINED IN A COMPLEX OF ENG AND LAB BUILDINGS. LCWSL HAS 20 ADMIN, 72 LAB & 82 STORAGE BLDGS.

CDR. COL THOMAS F. ZUCK

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	12.543	20.326
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.233	0.215
TOTAL OTHER	4.208	6.861
TOTAL ANNUAL LAB	16.984	27.402
TOTAL INHOUSE	13.231	18.745
TOTAL INHOUSE RDT&E	9.086	11.723
ANNUAL OPERATING COST	1.592	4.600

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	155	30	97	58
CIVILIAN	99	16	54	45
TOTAL	254	46	151	103

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
9	119.204	56.941	112.174	288.319	48.984	12.984

...MISSION

TO CONDUCT MEDICAL RESEARCH IN: BIOEFFECTS OF AND EYE PROTECTION AGAINST LASERS; BLOOD PRESERVATION; BLOOD SUBSTITUTES; RESUSCITATION METHODS FOR USE IN FORWARD AREAS; DERMAL PROTECTION FROM CHEM AGENT AND VECTOR BORNE DISEASE; MAMMALIAN AND IN VITRO TOXICOLOGY; FORWARD AREA CASUALTY CARE.

...CURRENT IMPORTANT PROGRAMS

DETERMINATION OF SAFE THRESHOLDS OF COHERENT RADIATION
 RESUSCITATION SOLUTIONS FOR USE FORWARD OF DEFINITIVE MEDICAL CARE.
 ACUTE AND CHRONIC MAMMALIAN AND IN VITRO TOXICOLOGY.
 CUTANEOUS PROTECTION AGAINST HAZARDS IN A COMBAT ENVIRONMENT
 FORWARD CARE TRAUMATIC SHOCK AND HIGH VELOCITY MISSILE INJURIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VARIOUS WAVE LENGTH LASERS, SIMULATED TERRAIN MODEL FOR EVALUATING OPERATOR PERFORMANCE FOLLOWING SIMULATED LASER EXPOSURE, CONVENTIONAL BLOOD STORAGE, SEPARATION AND ANALYSIS LABS TO INCLUDE MASS SPECTROMETRY, GAS AND #1 PERFORMANCE LIQUID CHROMATOGRAPHY, SURGICAL SUITES WITH ON-LINE MULTI-CHANNEL PHYSIOLOGIC MONITORS, GERM-FREE AND OPEN ANIMAL FACILITIES HOUSING MANY SPECIES FROM NUDE MICE TO SUB-HUMAN PRIMATES, COMPUTERS FOR ADMIN AND TECHNICAL/SCIENTIFIC DATA ANALYSIS, GENERAL RESEARCH LABS FULLY EQUIPPED WITH SPECTROMETERS, GAMMA AND SCINTILLATION COUNTERS, TRANSMISSION, SCANNING AND ELECTRON MICROSCOPES, COLD ROOM FOR FRACTIONATION.

DIR. DR. E. S. WRIGHT

CDR. COL L. ROSS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	36.362	47.731
TOTAL PROCUREMENT	0.400	0.015
TOTAL O&M	5.073	6.650
TOTAL OTHER	0.060	0.074
TOTAL ANNUAL LAB	41.895	54.470
TOTAL INHOUSE	24.344	30.792
TOTAL INHOUSE RDT&E	20.112	26.299
ANNUAL OPERATING COST	8.125	9.649

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	16	2	14	2
CIVILIAN	641	68	231	410
TOTAL	657	70	245	412

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
37	352.000	88.261	48.375	488.636	15.554	24.466

...MISSION

MANAGE THE AMC STRUCTURAL MATERIALS & MECHANICS PROGRAM AS LEAD LAB FOR MATERIALS, MECHANICS AND MANUFACTURING TESTING TECH. CONDUCT RESEARCH AT THE FOREFRONT OF TECHNOLOGY TO PROVIDE THE ADVANCED MATERIALS REQD FOR PRESENT AND FUTURE ARMY WEAPONS SYSTEMS AT REASONABLE COSTS.

...CURRENT IMPORTANT PROGRAMS

METAL AND ORGANIC MATRIX COMPOSITES FOR LIGHTWEIGHT MATERIEL APPLICATION
ADVANCED ARMOR AND ARMOR PENETRATOR MATERIALS INCLUDING LASER HARDENING
STRUCTURAL INTEGRITY, NDT, AND LIFE PREDICTION/RELIABILITY MECHANICS
CERAMICS FOR ELECTRO-OPTICAL, ENGINE, AND GUN TUBE APPLICATIONS
MATERIALS PROCESSING AND CHARACTERIZATION: METALS ORGANICS AND CERAMICS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CENTER POSSESSES IN-HOUSE EXPERTISE & FACILITIES TO PERFORM R&D PROJECTS FROM SYNTHESIS OF NEW & IMPROVED MATERIALS & DESIGNS TO THE PROTOTYPE MANUFACTURE OF COMPONENTS FOR ARMY WEAPONS SYSTEMS. METALS PROCESSING EQUIPMENT INCLUDES CASTING, FORGING, HEAT TREATING, ROLLING, JOINING, PLATING, ISOSTATIC PRESSING, VACUUM ARC MELTING, & MACHINING. CERAMIC PROCESSING EQUIPMENT: SLIP CASTING, HOT PRESSING, SINTERING & GRADIENT FURNACE CRYSTAL GROWTH. POLYMER/COMPOSIT PROCESSING EQUIPMENT, INJECTION MOLDING, LAMINATING, TAPE LAYUP, VACUUM FORMING, FILM FORMING & ORIENTATION, FILAMENT WINDING, PULTRUSION, FOAM PROCESSING & PILOT POLYMER PRODUCTION. QC & NOT EQUIPMENT, ULTRASONICS, XRAY & NEUTRON RADIOGRAPHY, SPECTROSCOPY, HOLOGRAPHY, CHEMICAL ANALYSIS, METALLOGRAPHY & OPTICS. OTHER: U & BE MACHINING, BALLISTIC RANGE & POWDER CHARACTERIZATION.

DIR. MR. KEITH A. MYERS

DEP DIR. COL JAMES J. WALDECK

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	25.137	26.436
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	5.732	4.355
TOTAL OTHER	0.660	0.686
TOTAL ANNUAL LAB	31.529	31.477
 TOTAL INHOUSE	 22.914	 23.133
TOTAL INHOUSE RDT&E	18.010	18.763
ANNUAL OPERATING COST	3.470	3.740

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	31	0	15	16
CIVILIAN	450	19	337	113
TOTAL	481	19	352	129

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	8.140	100.276	1.715	110.131	2.070	1.301

...MISSION

PREPARE AIR-TO-SURFACE, SURFACE-TO-SURFACE AND ANTI-AIR WPNS EFF MANUALS PROVIDES THE CENTRAL INDEPENDENT TECHNICAL CAPABILITY FOR DARCOM FOR THE CONDUCT OF MAJOR SYSTEMS ANALYSIS AND COST EFFECTIVENESS STUDIES, SERVES AS DARCOM LEAD ACTIVITY FOR SURVIVABILITY AND RELIABILITY, AVAILABILITY

...CURRENT IMPORTANT PROGRAMS

TEST, DESIGN, EVAL OF APPROX 60 SYSTEMS INCLUDING SGT YORK, 120MM GUN AMMO, TCAC, MK19 40MM GRENADE MG, HIRSS, ESSS, AND CVCU FACE MASK. EXAMINE PERFORMANCE AND SURVIVABILITY OF FAMILY OF LIGHT HELICOPTERS. DEVELOP METHODOLOGIES, EVALUATE EFFECTIVENESS OF ADVANCED IFF SYSTEMS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMSAA MISSION CAPABILITIES INCLUDE PERFORMING INDEPENDENT TEST DESIGN AND OVERALL EVALUATION FOR DECISIONS ON MAJOR, DESIGNATED NON-MAJOR AND SELECTED OTHER SYSTEMS; PROVIDING OVERVIEW OF LIFE CYCLE SURVEILLANCE PROGRAMS FOR MATERIEL SYSTEMS IN INVENTORY; PROVIDING WEAPONS SYSTEM EFFECTIVENESS ESTIMATES FOR COST AND OPERATIONAL EFFECTIVENESS ANALYSES; PROVIDING SYSTEMS ANALYSIS SUPPORT TO DARCOM MAJOR SUBORDINATE COMMANDS AND PROJECT/PRODUCT MANAGERS; MAINTAINING DIRECT CONTACT WITH ARMY MATERIEL USERS IN THE FIELD; SERVING AS THE DARCOM FIELD ACTIVITY FOR ADMINISTERING THE JOINT TECHNICAL COORDINATING GROUP FOR MUNITIONS EFFECTIVENESS AND PERFORMING LOGISTICS AND READINESS RELATED ANALYSIS.

CDR. COL CARL E. PEDERSEN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	26.614	14.035
TOTAL PROCUREMENT	0.235	0.100
TOTAL O&M	0.056	0.000
TOTAL OTHER	1.763	2.604
TOTAL ANNUAL LAB	28.668	16.739
TOTAL INHOUSE	7.610	8.032
TOTAL INHOUSE RDT&E	6.273	6.266
ANNUAL OPERATING COST	2.318	2.156

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	30	2	17	13
CIVILIAN	94	16	43	51
TOTAL	124	18	60	64

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	45.193	27.300	36.108	108.601	3.557	4.379

...MISSION

CONDUCTS R&D ON MEDICAL, DENTAL, AND PEST MANAGEMENT MATERIEL.
 PERFORMS R&D ON NEW DELIVERY SYSTEMS FOR INSECTICIDE DISPERSAL.
 PERFORMS R&D ON MILITARILY UNIQUE POLLUTANTS FROM ARMY INDUSTRIAL OPN.
 CONDUCTS R&D OF SOLDIER OCCUPATIONAL HEALTH HAZARDS.

...CURRENT IMPORTANT PROGRAMS

SIGNIFICANT LAB PROGRAMS ARE: TESTING OF A PESTICIDE DISPERSAL UNIT,
 MULTI-CAPABILITY HELICOPTER SLING; EVAL OF STEAM VACUUM PULSE AND ETHY-
 LENE OXIDE STERILIZERS; REVIEW OF ON-SITE MEDICAL OXYGEN SYSTEM; ENVIR-
 ONMENTAL QUALITY STUDIES ON MUNITIONS COMPOUNDS; AND HEALTH HAZARDS OF
 SMOKES AND OBSCURANTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DESIGN, DEVELOP & FABRICATE PROTOTYPE & TEST MODELS OF MIL MED MATERIEL.
 PRODUCE LIMITED QUANTITIES OF MED MAT FOR URGENT MILITARY REQUIREMENTS.
 DESIGN, DEVELOP & FABRICATE PEST MGT EQUIP AND SYSTEMS.
 DESIGN, DEVELOP & FABRICATE PROTOTYPE AND TEST MODELS OF MIL DENTAL MAT.
 PERFORM HEALTH HAZARD ASSESSMENT ON ARMY CHEMICALS.
 PERFORM UNIT PROCESS ENGINEERING RSCH ON WASTEWATER IN SUPPORT OF FIELD
 ARMY AND OCCUPATIONAL HEALTH AND ENVIRONMENTAL QUALITY CRITERIA.
 CONDUCTS HEALTH HAZARD ASSESSMENT FOR MATERIEL DEVELOPERS OF SMOKES,
 OBSCURANTS AND SYNFUELS; DEVISES STRATEGIES TO ELIMINATE EXPOSURE OR
 DEFINE CRITERIA FOR SAFE EXPOSURE STANDARDS.

INSTALLATION: MEDICAL R & D COMMAND

FT.DETRICK,MD.

CDR. MG GARRISON P. RAPMUND

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	7.993	9.228
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.410	0.330
TOTAL OTHER	2.871	4.172
TOTAL ANNUAL LAB	11.274	18.725
TOTAL INHOUSE	9.774	11.555
TOTAL INHOUSE RDT&E	6.493	7.106
ANNUAL OPERATING COST	6.493	7.106

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	58	30	55	3
CIVILIAN	93	2	3	90
TOTAL	151	32	58	93

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	38.757	0.000	38.757	0.632	0.997

...MISSION

ADMINISTRATION AND COORDINATION OF THE ARMY MEDICAL RDTE PROGRAM.
PROGRAM LIMITED TO UNIQUE MILITARY PROBLEMS WITHIN THE U.S. AND OCONUS.
SERVES AS AN ADMINISTRATIVE HEADQUARTERS FOR THE ARMY MEDICAL DEPARTMENT

...CURRENT IMPORTANT PROGRAMS

CARE OF THE WOUNDED
PREVENTION AND CONTROL OF INFECTIOUS DISEASES
ENHANCEMENT OF MILITARY PERFORMANCE
PROTECTION AGAINST MILITARY ENVIRONMENTAL HAZARDS
MEDICAL DEFENSE AGAINST CHEMICAL WARFARE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SERVES AS AN ADMINISTRATIVE HEADQUARTERS FOR THE ARMY MEDICAL DEPARTMENTS.

INSTALLATION: MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE ABERDEEN PROV. GR.,M

CDR. COL DUANE E. HILMAS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	89.386	66.900
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.001	0.068
TOTAL OTHER	2.929	4.148
TOTAL ANNUAL LAB	42.316	71.116
TOTAL INHOUSE	18.762	20.279
TOTAL INHOUSE RDT&E	15.895	16.090
ANNUAL OPERATING COST	3.000	3.250

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	85	37	50	35
CIVILIAN	155	24	75	80
TOTAL	240	61	125	115

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
31	36.246	18.945	99.029	154.220	9.384	13.234

...MISSION

FUNDMNTL RES ON MECH OF ACT OF CW AGENTS/ANTIDOTES TO ESTABLISH DAT BASE TO DEVISE IMPR METH FOR PREVENTION, RESUSCITATION, TREATMENT, & MGT OF CHEM CASUALTIES. ASSIST IN INTEGRATION OF MISSION PRDCTS INTO LOGIST SYS DOCTR DEV & TRNG OF MED & NONMED PRSNL IN THE MGT & PRVNTN OF CHEM CASU

...CURRENT IMPORTANT PROGRAMS

DEVELOP SOLDIER CW AGENT ANTIDOTES AND PRETREATMENT REGIMEN.
DEVELOP BIOMEDICAL MODELS TO EVALUATE DRUG EFFICACY.
EVALUATE BEHAVIORAL/PERFORMANCE DECREMENTS FROM CW AGENTS/ANTIDOTES.
DEVELOP METHODS FOR MGT & TREATMENT OF MASS CW CASUALTIES.
ESTABLISH MED CHEM DEFENSE SCIENCE BASE/MECHANISM OF ACTION AGENT/DRUGS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MODERN 7000 SF ANIMAL HOLDING FACILITY & CHEMICAL SURETY AREA.
TECH LIBRARY WITH 5246 BOOKS, 18000 JOURNALS AND MANY DATA BASES.
VIDEO PRODUCTION FACILITY & COMPUTER FACILITY (WITH NETWORK).
MEDICAL MAINTENANCE; LABORATORY SUPPLY AND NEAT AGENT FACILITIES.
RADIOISOTOPE CHEMICAL DRUG AND BIOMEDICAL ANALYSIS.
PSYCHOLOGY BEHAVIORAL TESTING LABORATORY.
LIQUID, GAS, COLUMN AND AFFINITY CHROMATOGRAPHY, ANAL ULTRACENTRIFUGE.
ELECTROPHORESIS, SPECTROSCOPY, FLUOROMETRY AND SPECTROPOLARIMETRY.
GC MASS SPECTROMETRY AND ELECTRON SPIN RESONANCE.
AMINO ACID ANALYSIS AND PEPTIDE SEQUENCING, MONOCLONAL ANTIBODIES.
PHYSIOLOGY, PHARMACOLOGY AND NEUROPHARMACOLOGY LABORATORIES
ELECTRON MICROSCOPY, TISSUE CULTURE, CELL CLONING RECEPTOR ANALYSIS

INSTALLATION: MEDICAL RSCH INST OF INFECTIOUS DISEASES FT.DETRICK,MD.

CDR. COL DAVID L. HUXSOLL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	33.853	31.506
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.471	0.590
TOTAL OTHER	6.553	11.071
TOTAL ANNUAL LAB	40.877	43.167
 TOTAL INHOUSE	 26.691	 31.254
TOTAL INHOUSE RDT&E	19.667	19.593
ANNUAL OPERATING COST	8.728	8.007

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	299	52	90	209
CIVILIAN	194	39	88	106
TOTAL	493	91	178	315

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
215	104.136	20.618	197.909	322.663	18.943	12.919

...MISSION

TO DEVELOP STRATEGIES, PRODUCTS, INFORMATION, PROCEDURES AND TRAINING FOR MEDICAL DEFENSE AGAINST BIOLOGICAL WARFARE AGENTS AND NATURALLY OCCURRING INFECTIOUS AGENTS OF MILITARY IMPORTANCE THAT REQUIRE SPECIAL CONTAINMENT.

...CURRENT IMPORTANT PROGRAMS

SYSTEMS FOR RAPID IDENTIFICATION AND DIAGNOSIS OF POTENTIAL BW AGENTS.
ANTIVIRAL DRUG SCREENING PROGRAM FOR BW AND MILITARILY UNIQUE VIRUSES.
DEVELOPMENT OF VACCINES AGAINST POTENTIAL BW AGENTS.
MEDICAL DEFENSIVE STUDIES TO PROTECT AGAINST TRICOTHECENE TOXINS.
RISK ASSESSMENT/EVALUATION OF VIRUS AGENTS AND THEIR VECTORS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MEDICAL RESEARCH CONDUCTED IN TWO BLDGS PROVIDING 300,000 SF AND CONTAINING 23 MODERN LAB SUITES WITH EMPHASIS ON P4 BIOHAZARD SAFETY CONTAINMENT. P4 OPERATIONS CONDUCTED IN PLASTIC SUITS AND MICROBIOLOGICAL CABINET SYSTEMS. THESE LABS CONSTITUTE A UNIQUE RESOURCE IN THE FREE WORLD FOR SAFE STUDY OF HIGH HAZARD DISEASE AGENTS. SPECIAL 16-BED EXPERIMENTAL WARD PERMITS VACCINE AND OTHER STUDIES IN VOLUNTEERS. P4 CONTAINMENT WARD PLUS P4 CLINICAL LAB AND P4 TRANSPORT SYSTEM PROVIDE STATE OF ART MEDICAL TREATMENT AND DIAGNOSIS FOR MOST HAZARDOUS DISEASES KNOWN. OTHER UNIQUE FEATURES INCLUDE AEROSOL ASSESSMENT, CELL CULTURE ELECTRON MICROSCOPES, MASS SPECTROMETRIC FACILITY MUCOSAL LABORATORY, DNA TECHNOLOGY HYBRIDOMA LAB, COAGULATION LAB EQUIPMENT TO PREPARE EXPERIMENTAL VACCINES AND TOXOIDS.

CDR. MG JERRY MAX BUNYARD

DIR. DR. WILLIAM C. MCCORKLE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	174.685	167.584
TOTAL PROCUREMENT	39.190	21.520
TOTAL O&M	23.565	6.660
TOTAL OTHER	23.522	2.329
TOTAL ANNUAL LAB	260.962	198.093
TOTAL INHOUSE	133.691	98.473
TOTAL INHOUSE RDT&E	78.000	72.644
ANNUAL OPERATING COST	20.796	17.185

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	45	0	22	23
CIVILIAN	1191	67	759	432
TOTAL	1236	67	781	455

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
11000	664.000	241.000	200.000	1105.000	129.616	112.000

...MISSION

SUPPORT PROJECT MNGED SYSTEMS; MNGE & CONDUCT RSCH, EXPL & ADV DEV FOR MISSILES, ROCKETS AND HIGH ENERGY LASERS.
 PROVIDE TECH SOLUTIONS TO ARMY'S CLOSE COMBAT, FIRE SPT, AIR DEF, AND AVIATION SYS NEEDS TO DEVELOP TECH FOR FUTURE SYS.

...CURRENT IMPORTANT PROGRAMS

HYPERVELOCITY MULTIPENETRATOR DISPENSING TECHNIQUES.
 HAWK-SPARROW DEMONSTRATION.
 SETTER AIR DEFENSE WEAPON.
 RF/FIBER OPTIC DATA LINK FOR DEEP ATTACK.
 LOW PROBABILITY OF INTERCEPT RADAR MISSION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LAB IS EQUIPED TO STUDY PROBLEMS IN PROP, AERO, G&C, & STRUCTURES. MAJOR FAC IS MCMORROW LAB WHICH HOUSES MAJORITY OF AML. SOME UNIQUE FAC ARE: ADV SIM CNTR; A COMPUTER COMPLEX SURROUNDED PERIPHERALLY BY 3 ENVIRON EFFECTS SIMULATORS; MSL COMPUTER SOFTWARE/HW CNTR; SIG EVAL CHAMBERS; ARMY MSL OPTICAL RANGE DESIGNED TO MEASURE LASER RADAR SIG. MAINTAINS AND OPERATES 7 MAJOR TEST AREAS WHICH ENCOMPASS FLIGHT STATIC, ENVIRON & FUNCTIONAL TEST; STATE-OF-THE-ART FAC & EQUIP SUCH AS LASER TRACKERS & ELECTRO-MAGNETIC RADAR SENSORS. PERFORMS ARMY LEAD LAB FUNCTION IN GUID & CONTROL/TERMINAL HOMING TECH AND HIGH POWER/ENERGY LASER TECH. FAC FOR MECH, ELECT & ELEC FAB AND HYBRID MICROCIRCUITRY DESIGN ARE AVAILABLE. SMOKE CHARACTERIZATION FAC IS ALSO AVAILABLE.

INSTALLATION: NATICK R & D CENTER

NATICK, MA.

CDR. COL DAVID L. SAUNDERS

TECH DIR. DR. ROBERT J. BYRNE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	51.712	54.804
TOTAL PROCUREMENT	31.437	40.000
TOTAL O&M	16.670	16.734
TOTAL OTHER	2.717	2.828
TOTAL ANNUAL LAB	102.536	114.866
TOTAL INHOUSE	53.585	55.433
TOTAL INHOUSE RDT&E	35.779	37.567
ANNUAL OPERATING COST	9.150	9.229

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	104	2	41	63
CIVILIAN	1148	70	501	647
TOTAL	1252	72	542	710

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
24	502.631	55.840	277.270	835.241	28.741	20.600

...MISSION

ACCOMP R&D IN THE PHYS AND BIOL SCI AND ENGR TO MEET MIL NEEDS IN CLO AND PERS EQUIP; AIRDROP; FIELD SHELTERS AND EQUIPAGE; FIELD ORG EQUIP; FOOD/FOOD SYS; CONTAINERS AND PACKAGING. PERF ILS FUNC. ENG SPT TO DLA AND GSA PROC. FIRST PROD BUY/FIELDING OF ARMY MANAGED ITEMS.

...CURRENT IMPORTANT PROGRAMS

CHEMICAL AND BALLISTIC PROTECTION
LASER/HIGH ENERGY PROTECTION
MICROCLIMATE COOLING PROGRAM FOR GROUND AND AIR COMBAT VEHICLES
COMBAT FIELD FEEDING SYSTEM
CHEMICAL, BALLISTIC AND NUCLEAR HARDENED TACTICAL SHELTERS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BACTERIOLOGY LAB EQUIP FOR INVES OF PATHOGENIC MICROORGANISMS; HIGH RESOLUTION MASS SPECTROMETER FOR ANALYSIS OF VOLATILE COMPOUNDS; FEBETRON MACHINE USED FOR FOOD OXIDATION; SCANNING TRANSMISSION ELECTRON MICROSCOPE; LASER LAB FOR EVAL OF HIGH ENERGY LASERS ON CLO AND RELATED MAT; DYEING AND FINISHING LAB FOR STUDIES OF TEXTILES; COMPUTER GENERATED SYS OF CLO PATTERNS TO OUTPUT COMPL TARIFF OF SIZES FROM ONE MASTER; CLIMATIC CHAMBERS W/TEMPS -57C TO &74C W/WIND AND RAIN; FLAME PROT LAB AND FACILITY INCL OUTDOOR FIRE PIT; AIRCRAFT ROLLER CONVEYER TEST FAC; DROP TEST FAC; 40 X 40 FT RAINCOURT; FOOD PROCESSING PLANT; FOOD SYS EQUIP LAB; EXPERIMENTAL KITCHEN; SENSORY EVALUATION LAB; HORIZONTAL IMPACT TESTING MACHINE; UNIVAC 1106, IBM 4341, PRIME 750 CAD/E, AND PRIME 2250 COMPUTERS WITH PERIPHERAL EQUIPMENT AND SOFTWARE.

ACT DIR. MR. PAUL D. TRAVESKY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	98.461	106.228
TOTAL PROCUREMENT	67.494	63.797
TOTAL O&M	3.653	5.116
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	169.608	175.141
TOTAL INHOUSE	33.543	41.005
TOTAL INHOUSE RDT&E	27.567	33.981
ANNUAL OPERATING COST	3.320	3.615

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	37	1	31	6
CIVILIAN	487	38	214	273
TOTAL	524	39	245	279

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
38	180.639	27.186	20.000	227.825	32.000	37.247

...MISSION

NV&EOL IS RESPONSIBLE FOR PROVIDING THE ARMY WITH AN ELECTRO-OPTICAL CAPABILITY THAT WILL ALLOW IT TO OPERATE WITH NEAR DAYLIGHT EFFICIENCY. THE SYSTEMS DEV PROGRAM IS STRUCTURED AROUND A STRONG TECHNOLOGY BASE WHICH CONSISTS OF FIR, ELECTRO-OPTICS, LASERS AND VISIONICS.

...CURRENT IMPORTANT PROGRAMS

RESEARCH AND DEVELOPMENT OF IR SENSORS
 AUTOMATION OF FLIR AND MULTI-SENSORS
 RESEARCH AND DEVELOPMENT OF VIS/FIR TUNABLE LASERS
 DEVELOPMENT OF I2 DEVICES
 VISIONICS ANALYSIS AND EVALUATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR FACILITIES INCLUDE: NIGHT VISION SYSTEM LAB, IR DETECTOR FABR AND ANALYSIS FACILITY, SURFACE RESEARCH FACILITY, FOCAL PLANE ARRAY TEST FACILITY, IR OPTICAL TEST FACILITY, IMAGE INTENSIFIER TUBE TESTING FACILITY, SEMICONDUCTOR MATERIALS RESEARCH FACILITY, ELECTRONICS TEST FACILITY, INTERACTIVE IMAGE PROCESSING FACILITY, LASER RANGES, 3-D MULTI SPECTRIAL SEARCH SIMULATOR, SCIENTIFIC COMPUTER CENTER, FIRING TEST RANGE, EO/IR IMAGE EVALUATION FACILITY, AND LASER MATERIAL EVALUATION FACILITY.

INSTALLATION: RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI ALEXANDRIA, VA.

CDR. COL L. NEALE COSBY

TECH DIR. DR. EDGAR M. JOHNSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	49.137	64.162
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.499	0.554
TOTAL OTHER	1.309	1.309
TOTAL ANNUAL LAB	50.945	66.025
TOTAL INHOUSE	23.340	24.271
TOTAL INHOUSE RDT&E	21.552	22.540
ANNUAL OPERATING COST	8.924	8.924

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	31	1	23	3
CIVILIAN	341	151	248	93
TOTAL	372	152	276	96

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	53.155	14.000	6.200	73.355	0.705	0.842

...MISSION

TO MAXIMIZE COMBAT EFFECTIVENESS THROUGH RESEARCH IN THE ACQUISITION
DEVELOPMENT AND UTILIZATION OF SOLDIERS IN MILITARY SYSTEMS

...CURRENT IMPORTANT PROGRAMS

NEW ASVAB COMPOSITES TO PREDICT SOLDIER PERFORMANCE
COMPUTERIZED ADAPTIVE SCREENING TEST
A PROFILE OF ARMY FAMILIES IN USAREUR
DECISION AIDS INCLUDED IN CURRICULA AT USAICS
SPECIFICATION OF HF DEFICIENCIES FOR SINCGARS, SCOTT LOT, NAVSTAR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE RESEARCH LABORATORIES, MANPOWER/PERSONNEL, TRAINING AND SYSTEMS
ARE DIVIDED INTO SEVEN FIELD UNITS AT FT LEAVENWORTH, FT KNOX, FT
BENNING, FT RUCKER, FT HOOD, FT BLISS AND PRESIDIO OF MONTEREY. NINE
TECH AREAS AT HQ ARE SELECTION AND CLASSIFICATION, PERSONNEL UTILIZATION
MANPOWER AND PERSONNEL POLICY RESEARCH, LEADERSHIP AND MANAGEMENT,
BATTLEFIELD INFORMATION SYSTEMS, SYSTEMS MANNING, INSTRUCTIONAL
TECHNOLOGY SYSTEMS, TRAINING AND SIMULATION, PRODUCT DEVELOPMENT AND
TECHNOLOGY. NINE SCIENTIFIC COORDINATION/LIAISON OFFICES AT LONDON, OTEA,
USAREUR, TRADOC, FORSCOM, FT SILL, FT HUACHUCA, TOKYO, AWA PM TRADE. IN
HOUSE EXPERIMENTAL FACILITIES INCLUDE LABORATORY AREAS-COMPUTERS THAT
PERMIT REALTIME EXPERIMENTATION GAMING AND SIMULATION WITH EXTERNAL
LINES TO PROVIDE FLEXIBILITY

CDR. COL BRENDAN E. JOYCE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	6.024	6.859
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.013	0.000
TOTAL OTHER	1.672	2.912
TOTAL ANNUAL LAB	7.709	9.771
 TOTAL INHOUSE	 6.993	 8.955
TOTAL INHOUSE RDT&E	5.808	6.043
ANNUAL OPERATING COST	1.215	1.244

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	74	6	39	35
CIVILIAN	84	24	69	15
TOTAL	158	30	108	50

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	65.177	14.037	28.647	107.861	4.084	7.664

...MISSION

DETERMINE EFFECTS OF TEMP, ALTITUDE, WORK, CHEM DEF, & MIL NUTRITION ON SOLDIER'S LIFE PROCESSES, PERF, & HEALTH. DEFINE INTERACTION OF ENV STRS BODY DEFENSES, TECHNIQUES, EQUIP & PROC TO PROTECT & MAKE THE SOLDIER OP EFFECTIVE. CONDUCTS RSCH IN PHYS/HLTH EFFECTS OF ARMY PHYS FITNS PROG

...CURRENT IMPORTANT PROGRAMS

DEV OF IMPVD FITNESS SCREENING/TESTING/LIFTING ABILITY & TASK PERF. STUDIES TO IMPROVE METH FIELD MSRMT BODY FAT FOR ARMY'S WT CONT PROG. ASSESS WORK LIM/SINGLE OR MULTIPLE PROT REGMNS TO CW AGENTS/ENVIRONMENT. BIOMED IMPACT OF MIL CLOTHING/EQUIP DESIGN; INVESTIGATIONS FOR PREV & TRMT HEAT OR COLD INJURY;& CELL/TISSUE/ORGAN ALT BY EXP TO ENV EXTREMES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE MAJOR EQUIPMENT AND FACILITY CAPABILITIES INCLUDE, BUT ARE NOT LIMITED TO, TWO LARGE ALTITUDE CHAMBERS, FOURTEEN SMALL CLIMATIC CHAMBERS, AAALAC ACCREDITED ANIMAL CARE FACILITIES, ELECTRON MICROSCOPY, UNDERWATER RESEARCH POOL, COPPER MANIKINS AND DIVERSE PHARMACOLOGICAL AND PSYCHOLOGICAL MEASURING EQUIPMENT. THE INSTITUTE MAINTAINS A FIELD FACILITY ON THE SUMMIT OF PIKES PEAK, COLORADO.

INSTALLATION: SIGNALS WARFARE LABORATORY

VINT HILL, VA.

DIR. MR. HERBERT S. HOVEY, JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	49.621	67.128
TOTAL PROCUREMENT	252.519	171.580
TOTAL O&M	14.550	18.997
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	316.690	257.705
TOTAL INHOUSE	16.964	19.390
TOTAL INHOUSE RDT&E	10.188	13.713
ANNUAL OPERATING COST	5.654	5.713

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	51	0	51	0
CIVILIAN	180	5	180	0
TOTAL	231	5	231	0

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6	4.100	32.100	7.200	43.400	3.580	5.916

...MISSION

EXPENDABLE JAMMERS

PROVIDE THE US ARMY WITH AN EFFECTIVE TACTICAL COMMUNICATIONS ELECTRONIC WARFARE AND TACTICAL AND STRATEGIC COMMUNICATIONS INTELLIGENCE (COMINT) MATERIEL CAPABILITY IN SUPPORT OF THE ARMY'S MISSION.

...CURRENT IMPORTANT PROGRAMS

AN/TSQ-114 TRAILBLAZER
AN/MLQ-34 TACJAM
AN/TLQ-17A TRAFFIC JAM
AN/TRQ-32 TEAMMATE
EH-60A QUICKFIX 11B

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE US ARMY SIGNALS WARFARE LABORATORY IS LOCATED AT VINT HILL FARMS STATION, WARRENTON, VIRGINIA, IN A FACILITY UNIQUELY SUITED TO ITS COMMUNICATIONS INTERCEPT, PROCESSING, COLLECTION, DIRECTION FINDING AND JAMMING MATERIAL MISSION. FACILITIES AVAILABLE INCLUDE AN ANTENNA FIELD FOR SIGNALS COLLECTION, A COMPUTERIZED SIGNAL ANALYSIS PROCESSING SYSTEM FOR SIGNALS SIMULATION AND ANALYSIS, AND AN IN-HOUSE FACILITY FOR SYSTEM SOFTWARE VERIFICATION AND VALIDATION. THE LAB IS STAFFED WITH ELECTRONICS ENGINEERS, TECHNICAL SIGNAL ANALYSTS, OPERATION RESEARCH ANALYSTS, INTEGRATED LOGISTICS SUPPORT PERSONNEL, PRODUCT AND QUALITY ASSURANCE TECHNICANS, AND PRODUCTION ENGINEERS TO PROVIDE FOR MILITARILY USEFUL EQUIPMENT AND SYSTEMS.

INSTALLATION: TANK-AUTO COMMAND R & D CENTER

WARREN, MI.

CDR. BG C. P. WEIDENTHAL

TECH DIR. DR. H. H. DOBBS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	216.925	264.019
TOTAL PROCUREMENT	15.066	0.000
TOTAL O&M	3.335	3.291
TOTAL OTHER	1.489	1.556
TOTAL ANNUAL LAB	236.815	263.866
TOTAL INHOUSE	43.801	44.711
TOTAL INHOUSE RDT&E	38.107	40.393
ANNUAL OPERATING COST	9.722	8.009

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	26	0	16	10
CIVILIAN	461	14	246	215
TOTAL	487	14	262	225

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
11	257.125	33.284	111.777	402.186	215.221	117.445

...MISSION

RESPONSIBLE FOR ACCOMPLISHING DESIGN, DEVELOPMENT, ACQUISITION & INITIAL DEPLOYMENT OF ASSIGNED TANK-AUTO VEHICLES/EQUIPMENT/SYSTEMS. CONDUCT & MANAGE RESEARCH, CONCEPT DESIGN STUDIES & COMPONENT DEVELOPMENTS, PERFORM PROCUREMENT, QUALITY ASSURANCE & RAM-D THRU DEVELOPEMENT

...CURRENT IMPORTANT PROGRAMS

COMBAT VEHICLE TRACK & SUSPENSION PROGRAM.
COMBAT VEHICLE SURVIVABILITY THRU THREAT WARNING & DATA MGMT.
VEHICLE ELECTRICAL/ELECTRONIC SYSTEMS INTEGRATION.
FUTURE CLOSE COMBAT VEHICLE SYSTEMS.DESIGN,SIMULATION & TEST BED DEMOS.
ADVANCED INTEGRATED PROPULSION SYSTEMS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VEHICLE BRAKE DYNAMOMETER. ENGINE & TRANSMISSION TEST CELLS.
VEHICLE COMPONENT/SUBSYSTEM INTEGRATION & EVALUATION.VEHICLE MOTION SIMULATOR. ANALYTICAL PREDICTION OF LAND VEHICLE PERFORMANCE.VEHICLE SIGNATURE MEASUREMENT CAPABILITY. SIX DEGREE OF FREEDOM SIMULATOR
SCIENTIFIC & ENGINEERING COMPUTER NETWORK (SENET) FOR COMPUTER AIDED DESIGN (CADE) SERVICES. METAL ANALYSIS WITH MICROPROBE ELECTRON MICROSCOPE ANALYZER & TECHNIQUES. DEVELOPMENT OF IMPROVED ARMOR WELDING, FABRICATION & APPLICATION TECHNIQUES.
LOW TEMPERATURE SHOCK & VIBRATION TEST FACILITIES.
VEHICLE DYNAMIC SIMULATION FACILITY.
IMAGE PROCESSING CAPABILITY.
HOLOGRAPHIC CAPABILITY FOR LARGE STRUCTURES.

INSTALLATION: TROPIC TEST CENTER

FT. CLAYTON, C.Z.

CDR. COL EDWARD GRIER, JR.

TECH DIR. MR. FRANK S. MENDEZ

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	4.045	4.022
TOTAL PROCUREMENT	0.085	0.032
TOTAL O&M	0.004	0.002
TOTAL OTHER	1.606	1.654
TOTAL ANNUAL LAB	5.740	5.710
TOTAL INHOUSE	5.600	5.369
TOTAL INHOUSE RDT&E	3.941	3.685
ANNUAL OPERATING COST	0.496	0.478

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	71	0	13	58
CIVILIAN	60	2	12	48
TOTAL	131	2	25	106

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2619	18.000	35.925	75.273	129.198	0.879	5.709

...MISSION

PLAN, CONDUCT AND REPORT ON TROPIC ENVIRONMENTAL PHASES OF DEVELOPMENT TEST II AND OTHER DEVELOPMENTAL TYPE TESTS. PROVIDE ADVICE AND GUIDANCE ON TESTS AND EVALUATION MATTERS TO MATERIEL DEVELOPERS, MATERIEL PRODUCERS, OTHER SERVICES AND PRIVATE INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

M1E1 TANK SYSTEM
PATRIOT MISSILE STORAGE RELIABILITY TEST
CHEMICAL AGENT MONITOR
TEST METHODOLOGY STUDIES
IN-HOUSE LABORATORY INDEPENDENT RESEARCH STUDIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST FACILITIES AND LABORATORIES WITH INSTRUMENTS AND EQUIPMENT FOR CONDUCTING TROPICAL TESTS OF DOD MATERIEL IN THE NATURAL ENVIRONMENT TO INCLUDE ELECTRONICS, HUMAN FACTORS, CHEMICAL, MICROBIOLOGICAL, MATERIALS, SOILS, AUDIO-VISUAL, AND DATA ANALYSIS LABORATORIES.
OTHER TEST RESOURCES CONSIST OF FIRING RANGES, NATURAL TERRAIN MOBILITY COURSES, AMMO TEST STORAGE AND FUNCTIONING AREAS, JUNGLE, GRASS, AND COASTAL MATERIEL EXPOSURE SITES, JUNGLE RADIO RANGING SITES, POL TANK FARM, MANPACK PORTABILITY COURSE, CALIBRATED SEISMIC DETECTION AND CHEMICAL TEST GRIDS AND 2533 ACRES OF BROADLEAF EVERGREEN TREES, SEMIDECIDUOUS TREES, MARSHLAND, GRASSLAND, CORAL REEFS, FLAT AND HILLY TERRAIN AND ALL TYPES OF VEGETATION.

INSTALLATION: WALTER REED ARMY INSTITUTE OF RESEARCH

WASHINGTON, D.C.

DIR. COL FRANKLIN H. TOP, JR.

DEP DIR. COL C. A. ROBERTS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	72.700	66.984
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.319	2.364
TOTAL OTHER	13.018	20.943
TOTAL ANNUAL LAB	88.037	90.291
 TOTAL INHOUSE	 52.582	 62.895
TOTAL INHOUSE RDT&E	37.386	40.158
ANNUAL OPERATING COST	4.877	5.000

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	451	62	257	194
CIVILIAN	551	102	279	272
TOTAL	1002	164	536	466

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
203	386.274	63.600	0.000	449.874	10.080	23.260

...MISSION

PERFORMS GENERAL MILITARY MEDICINE RESEARCH IN THE AREAS OF COMM DIS AND IMMU SURGERY DRUG DEV, NEUROPSYCHOLOGY, GENERAL MED AND PREV MED. SERVES AS COMMAND AND CONTROL ELEMENT FOR THE SPECIAL FOREIGN ACTIVITIES. PLANS AND CONDUCTS AMEDD COURSES.

...CURRENT IMPORTANT PROGRAMS

BASIC RESEARCH ON MILITARY DISEASES
MILITARY PSYCHIATRY
MICROWAVE INJURY, PREVENTION AND TREATMENT
MEDICAL EFFECTS OF WEAPONS SYSTEMS BLAST OVERPRESSURE
MEDICAL ASPECTS OF CHEMICAL WARFARE DEFENSE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT AND FACILITY CAPABILITY OF THE LABORATORY INCLUDES CHEMICAL ANALYSIS EQUIPMENT, MICROBIOLOGICAL LABORATORIES, MICROWAVE EXPOSURE SYSTEM, BEHAVIORAL RESEARCH INSTRUMENTATION, AND ELECTRON MICROSCOPES. ADDITIONAL RESEARCH FACILITIES ARE LOCATED IN GERMANY, MALAYSIA, KENYA, THAILAND AND BRAZIL.

CDR. MG NILES J. FULWYLER

TECH DIR. DR. RICHARD H. DUNCAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	234.458	236.937
TOTAL PROCUREMENT	11.346	16.265
TOTAL O&M	9.937	10.535
TOTAL OTHER	26.955	27.753
TOTAL ANNUAL LAB	282.696	291.490
TOTAL INHOUSE	191.498	197.011
TOTAL INHOUSE RDT&E	155.812	156.378
ANNUAL OPERATING COST	43.627	43.785

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	895	5	336	559
CIVILIAN	2742	65	1097	1645
TOTAL	3637	70	1433	2204

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1758224	52.945	583.920	4448.663	5085.528	234.216	236.210

...MISSION

TO PROVIDE AND OPERATE A NATIONAL TEST RANGE,
TO TEST AND EVALUATE ARMY MATERIEL, AND
TO OPERATE AND MAINTAIN THE INSTALLATION.

...CURRENT IMPORTANT PROGRAMS

ARMY-PERSHING, PATRIOT, COPPERHEAD, MLRS, SGT YORK, STINGER, AND HAWK
AIR FORCE-AMRAM, AIM, AND F-15 TACTICAL OPERATIONS AND TRAINING
NAVY-ROLLING AIRFRAME MISSILE, STANDARD MISSILE, AND SOUNDING ROCKETS
NASA-SHUTTLE TRAINING/OPERATIONS AND TRACKING DATA RELAY SATELLITE SYS
OTHER-DIRECTED ENERGY TEST AND DEVELOPMENT AND DNA TESTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WSMR, AN ALL OVER LAND TEST RANGE, PROVIDES TREMENDOUS LAND AND AIRSPACE
FOR MISSILE SYSTEM/SUBSYSTEM TESTING. THE RANGE PROVIDES INTERNAL AND
EXTERNAL MEASUREMENTS DATA UTILIZING TELEMETRY (SECURE) AND RADAR, LASER
TRACKING, INTERFEROMETER, OPTICAL, AND OTHER INSTRUMENTATION SYSTEMS.
THESE SYSTEMS, THE LAUNCH COMPLEXES, CONTROL CENTERS, AND DATA PROCES-
SING AND DISPLAY FACILITIES ARE JOINED BY EXTENSIVE TIMING AND COMMUNI-
CATIONS SYSTEMS. OTHER CAPABILITIES INCLUDE: EXPERIMENTAL PAYLOAD AND
MISSILE COMPONENT RECOVERY, AIR AND GROUND MULTIPLE TARGET CONTROL, AND
GEODETIC SURVEYING. OTHER TEST FACILITIES AND EQUIPMENT INCLUDE: GUID-
ANCE, ELECTRO-OPTICAL AND MICRO-WAVE SYSTEMS; DYNAMIC AND CLIMATIC ENVI-
RONMENTS, CHEMICAL, METALLURGICAL, MICROBIOLOGICAL, NUCLEAR AND ELECTRO-
MAGNETIC EFFECTS; AND HAZARDOUS WARHEADS AND EXPLOSIVES.

INSTALLATION: YUMA PROVING GROUND

YUMA, AZ

CDR. COL ROBERT H. LIPINSKI

TECH DIR. MR. WAHNER E. BROOKS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	47.197	46.750
TOTAL PROCUREMENT	14.287	12.777
TOTAL O&M	0.890	2.177
TOTAL OTHER	7.668	8.191
TOTAL ANNUAL LAB	70.042	69.895
TOTAL INHOUSE	55.024	52.957
TOTAL INHOUSE RDT&E	33.013	32.397
ANNUAL OPERATING COST	15.297	16.370

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	429	0	38	391
CIVILIAN	737	2	158	579
TOTAL	1166	2	196	970

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
838314	1.144	100.268	1489.687	1591.099	60.453	109.876

...MISSION

PLAN, CONDUCT, SUPPORT DEVELOPMENT TEST OF AIR DELIVERY SYSTEMS, LONG RANGE TUBE ARTILLERY, AIRCRAFT ARMAMENT, DIRECT FIRE WEAPONS AND AUTOMOTIVE EQUIPMENT. PLAN AND CONDUCT DESERT FIELD TESTS AND ENVIRONMENTAL SIMULATION. DEVELOP TEST INSTRUMENTATION AND METHODS.

...CURRENT IMPORTANT PROGRAMS

GLOBAL POSITIONING SYSTEM
ARMY HELICOPTER IMPROVEMENT PROGRAM
60,000 POUND AIR DELIVERY SYSTEM
M718 155MM PROJECTILE
M1E1 ABRAMS TANK

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INSTRUMENTED OVERLAND 60 KM ARTILLERY RANGE WITH SUPPORT FACILITIES. 20 X 30 KM AIRCRAFT ARMAMENT RANGE & AIR DELIVERY DROP ZONES SUPPORTED BY 6 LASER TRACKERS, POSITION LOCATING SYSTEM, TM, CINETHEODOLITES, & VIDEO SCORING/EVENTS CONNECTED TO A REAL-TIME DATA PROCESSING SYSTEM WITH 3 DISPLAY & CONTROL CENTERS. 5 SEPARATE AIRSPACE CONTROLLED AREAS PERMIT SAFE CONDUCT OF CONCURRENT TESTS. AUTOMOTIVE TEST COURSES FOR PERFORMANCE, MOBILITY & DURABILITY TESTS INCLUDING PAVED DYNAMOMETER COURSE WITH NOBLE DYNOS & SUPPORT SHOP PHYSICAL MEASUREMENT, TDT, XRAY, PETROL & CHEMICAL LABS. STATIONARY, MOVING VISUAL TARGETS & THERMAL TARGET PANELS. SCIENTIFIC COMPUTER CENTER WITH REAL-TIME & BATCH PROCESSING. HARD SURFACE AIRFIELD WITH 5150 & 6000 FT RUNWAYS, MAINTENANCE FAC. TECH INFO CENTER INCL WORLD DESERT TERRAIN DATA & CLIMATIC INFO.

CO. CAPT W. M. HOUK

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	3.461	5.571
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.717	1.157
TOTAL ANNUAL LAB	4.178	6.728
TOTAL INHOUSE	4.088	6.728
TOTAL INHOUSE RDT&E	3.871	5.571
ANNUAL OPERATING COST	1.286	1.290

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	37	10	22	15
CIVILIAN	56	11	24	82
TOTAL	93	21	46	47

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
8	111.293	6.796	8.052	126.141	4.820	1.022

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION IN AVIATION MEDICINE AND ALLIED SCIENCES RELATED TO THE SAFETY AND PERFORMANCE OF NAVY AND MARINE CORPS PERSONNEL.

...CURRENT IMPORTANT PROGRAMS

AVIATION MEDICAL PERFORMANCE BASE STANDARDS.
 PHYSIOLOGICAL AND BEHAVIORAL EFFECTS NONIONIZING RADIATION.
 HUMAN FACTORS DESIGN CRITERIA DEVELOPMENT.
 DEVELOPMENT IN PERFORMANCE ENHANCEMENT IN NAVAL MOTION ENVIRONMENTS.
 AVIATION VISUAL PERFORMANCE REQUIREMENTS AND CAPABILITIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MICROWAVE AND EXTREMELY LOW FREQUENCY NONIONIZING RADIATION FACILITY.
 SLOW ROTATION ROOM. CORIOLIS ACCELERATION PLATFORM. HUMAN DISORIENTATION DEVICE. STILL-WERNER CHAIR. OFF VERTICAL ROTATING CHAIR. ANACHOIC AND REVERBERANT CHAMBERS. AUTOMATED PULMONARY FUNCTION. TREADMILL. VECTOR AND ECHOCARDIOGRAPH. THERMOGRAPHIC IMAGING SYSTEM. 30 BINOCULAR EYE-TRACKER AND VISUAL STIMULATOR ELECTRON MICROSCOPE. VIVARIUM WITH OPERATING SUITE, EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOSPHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS. COMPLEX TASKS HUMAN PERFORMANCE MEASUREMENT SYSTEMS.

INSTALLATION: AIR DEVELOPMENT CENTER

JOHNSVILLE, PA.

CO. CAPT E. J. STURM

TECH DIR. MR. R. S. BUFFUM

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	194.726	201.853
TOTAL PROCUREMENT	86.286	95.834
TOTAL O&M	48.956	43.190
TOTAL OTHER	22.624	20.565
TOTAL ANNUAL LAB	352.592	361.442
TOTAL INHOUSE	139.377	158.101
TOTAL INHOUSE RDT&E	90.256	116.639
ANNUAL OPERATING COST	74.841	76.129

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	252	6	73	179
CIVILIAN	2436	43	1357	1079
TOTAL	2688	49	1430	1258

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
840	852.000	83.000	654.000	1589.000	38.145	69.347

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR NAVAL AIRCRAFT SYSTEMS
LESS AIRCRAFT-LAUNCHED WEAPONS SYSTEMS

...CURRENT IMPORTANT PROGRAMS

CV-ASW MODULE (CARRIER ASW)

VS/VP, F14/F18 PROGRAMS

LIGHT AIRBORNE MULTI-PURPOSE SYSTEMS (LAMPS)

TACAMO/ECX STRATEGIC COMMUNICATION AIRCRAFT

J-TIDS (JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AIR WARFARE ANALYSIS, AIR ASW ANALYSIS, AIR COMBAT SYSTEMS ENGINEERING AND INTEGRATION. AIR VEHICLES (STRUCTURES, MATERIALS, FLIGHT DYNAMICS, PERFORMANCE, FLIGHT CONTROL), AIR VEHICLES-RELATED HUMAN FACTORS. AIRCRAFT, SURFACE SHIP, AND SUBMARINE NAVIGATION SYSTEMS. AIRCRAFT CREW EQUIPMENT AND LIFE SUPPORT. AEROSPACE MEDICINE AND AVIATION PHYSIOLOGY. AIR COMMAND AND CONTROL SYSTEMS. AIR TARGETS (SUB-SCALE). DEVELOPMENT AND INTEGRATION OF AIRBORNE SYSTEMS INCLUDING ELECTRONIC SURVEILLANCE AND COUNTER MEASURES, COMMUNICATION, NAVIGATION INFORMATION, ENVIRONMENTAL SENSING (ELECTROMAGNETIC/MAGNETIC, ACOUSTIC, ELECTRO-OPTIC AND PHOTOGRAPHIC). LAB FACILITIES: CENTRAL COMPUTER FACILITY, VIBRATION, THERMAL & PRESSURE FACILITIES. FLIGHT SIMULATION-CENTRIFUGE, SONOBUOY TEST FACILITY, INERTIAL NAVIGATION FACILITY.

INSTALLATION: AIR PROPULSION CENTER

TRENTON, N. J.

CO. CAPT H. G. CHALKLEY

DIR. MR. D. R. SNYDER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	41.331	67.144
TOTAL PROCUREMENT	1.634	3.417
TOTAL O&M	0.087	0.079
TOTAL OTHER	0.390	5.496
TOTAL ANNUAL LAB	43.442	76.136
TOTAL INHOUSE	35.245	52.462
TOTAL INHOUSE RDT&E	33.160	43.470
ANNUAL OPERATING COST	11.009	12.673

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	8	0	7	1
CIVILIAN	646	0	196	450
TOTAL	654	0	203	451

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
68	488.390	27.962	92.816	609.168	52.190	11.135

...MISSION

PROVIDE NAVAIR & FLEET COMPLETE TECHNICAL & ENGINEERING SUPPORT FOR AIR-BREATHING PROPULSION SYSTEMS, ACCESSORIES, COMPONENTS AND FUELS & LUBES. MANAGE AND PERFORM APPLIED R&D ON NEW PROPULSION SYSTEMS; EVALUATE NEW SYSTEMS. BY T&E ASSURE MISSION ACCOMPLISHMENT AND SOLVE FLEET PROBLEMS.

...CURRENT IMPORTANT PROGRAMS

CRUISE MISSILE ENGINE (F107/F112) WARRANTY/DEVELOPMENT TESTING
 AIRCRAFT ENGINE FUEL RESEARCH, DEVELOPMENT, TEST & EVALUATION
 TF30 ENGINE STALL RECOVERY INVESTIGATION
 F402 SURGE MARGIN INVESTIGATION
 JOINT TECHNOLOGY DEMONSTRATOR ENGINE PROG PLANNING, EXECUTION AND MGMT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE LARGE ALTITUDE CELLS, TWO LARGE SEA LEVEL CELLS AND FOUR SMALL ALTITUDE CELLS PROVIDE ENVIRONMENTAL AND FLIGHT SIMULATION CAPABILITY OF SEA LEVEL TO 100,000 FEET; MINUS 65 TO PLUS 650 DEGREES F; FLIGHT SPEEDS FROM ZERO TO MACH 3 TO TEST TURBOJET/FAN AND TURBOPROP/SHAFT ENGINES. FIVE TEST ROOMS TO TEST STARTERS, ACCESSORIES AND AUXILIARY POWER UNITS. TEN TEST ROOMS AND CHEMISTRY LAB USED FOR R&D ON FUELS, LUBES AND BEARINGS. SPECIAL TEST FACILITIES ARE ROTOR SPIN FACILITY, HELICOPTER TRANSMISSION TEST FACILITY, GYRO RIG AND ENGINE TURNABLE. FACILITIES ARE USED FOR R&D ON ADVANCED FUELS AND LUBRICATING OILS, OIL-WETTED ENGINE COMPONENTS, AIR POLLUTION, LOW CYCLE FATIGUE, CONTAINMENT, NOISE AND I/R PROGRAMS. NAPC QUALS OILS, MANAGES NAVY EXPLORATORY AND ADV DEVEL PRGMS, PROVIDES ADMN & TECH DIR TO SELECTED NAVAIR CONTRACTS.

INSTALLATION: AIR TEST CENTER

PATUXENT RIVER MD

CO. RADM E. J. HOGAN

TECH DIR. MR. J. F. LYNCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	128.793	149.032
TOTAL PROCUREMENT	45.331	40.494
TOTAL Q&M	33.785	34.131
TOTAL OTHER	73.384	62.249
TOTAL ANNUAL LAB	231.293	285.906
TOTAL INHOUSE	197.539	201.686
TOTAL INHOUSE RDT&E	78.203	90.492
ANNUAL OPERATING COST	84.083	89.492

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1486	5	294	1192
CIVILIAN	2111	6	532	1579
TOTAL	3597	11	826	2771

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7156	25.426	425.407	4681.507	5132.340	144.577	99.785

...MISSION

CONDUCT RDT&E ON AUTOMATIC TEST EQUIP, COMPUTERS & SOFTWARE, HUMAN FACTRS, RELIABLTY & MAINTABLT, DYNAMIC INTERFACE, & SYS INTEGRATION. PRIN SITE FOR FULL SCALE DEV BY CONTR OF NAV & MARCORPS AIRCRFT, GRND SUPP EQUIP & TRNG SIMULATORS. TRNG NAV TEST PILOTS. DEV AIRCRFT TEST TECHNIQ, TECHNOL & FAC.

...CURRENT IMPORTANT PROGRAMS

F/A-18A, LAMPS AND AV-8B FULL SCALE DEVELOPMENT AND SERVICE SUITABILITY TESTING. CONDUCT TECHEVALS AND BIS TRIALS FOR F/A-18A, F-14, F-4, A-4, A-7, A-6, EA-6, AV-8B, P-3, S-3, E-2, EC-130, AH-1, UH-1, H-46, H-53, H-2, H-3 AND SH-60.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LARGE, INSTRUMENTED, RESTRICTED AIRSPACE PLUS DIRECT ACCESS TO INSTRUMENTED OFFSHORE WARNING AREAS; REAL-TIME RANGE & AIRCRAFT TELEMETRY DATA PROCESSING & DISPLAY; SIMULATION CAPABILITIES FOR AIRBORNE WEAPONS SYSTEMS & SOFTWARE; ENVIRONMENTAL STIMULATION CAPABILITIES FOR UNDER-WATER ACOUSTICS, ELECTRONIC WARFARE & ELECTROMAGNETIC VULNERABILITY & EFFECTS TESTING; AIRCRAFT GUN FIRING TUNNEL; ELECTRICAL SYSTEM TEST FACILITY; CONTROLLED ENVIRONMENT ENGINE, HYDRAULIC, FUEL, ENVIRONMENTAL & ELECTRICAL TEST CAPABILITY; SHIPBOARD CATAPULT & ARRESTING GEAR; ANTENNA TEST RANGE; LAND, SEA & AIR TARGETS; SHIP GROUND STATION FOR LAMPS TESTING; ELECTROMAGNETICALLY SHIELDED HANGAR; PRECISION ELECTRO-OPTICAL TARGET; EXTENSIVE AIRCRAFT & GROUND-BASED INSTRUMENTATION POOL AIDED BY DEVELOPMENT, FABRICATION & INSTALLATION FACILITIES.

INSTALLATION: ATLANTIC FLEET WEAPONS TRAINING FACILITY

ROOSEVELT ROADS, P.R.

CO. CAPT D. A. GERRISH, JR.

TECH DIR. MR. J. R. BROWN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	0.400	0.200
TOTAL PROCUREMENT	0.943	10.304
TOTAL O&M	21.416	22.463
TOTAL OTHER	6.925	5.485
TOTAL ANNUAL LAB	29.684	38.452
TOTAL INHOUSE	5.849	5.948
TOTAL INHOUSE RDT&E	0.050	0.100
ANNUAL OPERATING COST	2.204	1.209

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	87	0	26	61
CIVILIAN	34	0	24	10
TOTAL	121	0	50	71

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3690	0.000	14.957	182.152	197.109	13.810	133.000

...MISSION

TO OPERATE, MAINTAIN AND DEVELOP WEAPONS TRAINING FACILITIES AND SERVICES IN DIRECT SUPPORT OF THE TRAINING OF FLEET FORCES AND OTHER ACTIVITIES AND FOR THE DEVELOPMENT, TEST AND EVALUATION OF WEAPONS SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

GPS/SMILS TESTS
CNO PROJ 623 SM-2 BLK II
CNO PROJ 100 AEGIS PROGRAM
TOMAHAWK

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NAVY'S LARGEST TRAINING FAC FOR ATLANTIC FORCES WITH 202,000 SQ.MI. COMBINED SEA AREA FOR AIR, SURFACE AND SUBSURFACE WARFARE OPERATIONS. CENTRAL COMMAND AND CONTROL SYSTEM WITH NTDS LINKING, REALISTIC EW ENVIRONMENT, SURVEILLANCE/TRACK RADARS, AIR/SURFACE TARGETS PRESENTATION, LARGE SCREEN DISPLAY SYSTEM FOR OPS MONITOR/CONTROL, EVENT RECONSTRUCTION, AND VARIOUS OTHER INSTRUMENTATION SYS. FLTAC FIELD STATION FOR MISSILE ANALYSIS AND EVALUATION. AIR TO GRND AND SURFACE TO SURFACE WEAPONS TARGET FACILITIES FOR CONVENTIONAL AIRCRAFT ORDNANCE DELIVERY, STRAFING AND NAVAL GUNFIRE WITH RADAR, TV BOMB SCORING SYSTEM AND OTHER SCORING/SPOTTING SYSTEMS. UNDERWATER RANGE FOR PRECISION SURFACE AND SUBSURFACE TRACKING, WSATS AND FORACS. NAVSTA PROVIDES FOR AIRCRAFT/SHIPS LOGISTICS SUPPORT, BOQ AND BEQ.

CO. CAPT ROBERT J. BIRSNER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	3.847	3.874
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.137	0.000
TOTAL OTHER	0.724	0.813
TOTAL ANNUAL LAB	4.708	4.687
TOTAL INHOUSE	3.756	4.005
TOTAL INHOUSE RDT&E	3.047	3.192
ANNUAL OPERATING COST	0.824	0.520

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	34	3	10	24
CIVILIAN	53	2	19	34
TOTAL	87	5	29	58

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	35.702	24.452	0.000	60.154	2.070	0.279

...MISSION

CONDUCT BIOMED RSCH ON EFFECTS OF MECH FORCES (MOTION, VIBR, IMPACT) ENCOUNTERED IN SHIPS AND AIRCRAFT BY NAVY PERSONNEL; ESTABLISH HUMAN TOLERANCE LIMITS FOR THESE FORCES; DEVELOP PREVENTIVE AND THERAPEUTIC METHODS TO PROTECT PERSONNEL FROM DELETERIOUS EFFECTS OF SUCH FORCES.

...CURRENT IMPORTANT PROGRAMS

LONG-TERM EFFECTS OF BIODYNAMIC STRESS EXPERIMENTS
PHYSIOLOGICAL AND PERFORMANCE EFFECTS OF SHIP MOTION ON CREW MEMBERS
DETERMINATION OF HUMAN DYNAMIC RESPONSE TO IMPACT ACCELERATION
EFFECTS OF IMPACT ACCELERATION ON HUMAN NEUROPHYSIOLOGY
DEVELOPMENT OF AND VALIDATION OF HUMAN ANTHROPOMORPHIC MANIKINS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

IMPACT FACILITY 1 MEGA N THRUST ACCELERATOR. 213 M ENVIRONMENTALLY ENCLOSED TRACK. 17.8K N THRUST VERTICAL ACCELERATOR. XRAY CINEMATOGRAPHY ELECTRODYNAMIC MOTION EXCITORS. C210 SHAKER. SHIP MOTION GENERATOR. 22 CHANNEL INERTIA DATA ACQUISITION SYSTEM AND HIGH SPEED CAMERAS EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOSPHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS.

INSTALLATION: BIOSCIENCES LABORATORY

OAKLAND, CA.

CO. CDR W. P. CARNEY

SCI DIR. DR. D. KINGSBURY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	2.830	3.369
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.282	0.293
TOTAL ANNUAL LAB	3.112	3.662
TOTAL INHOUSE	3.112	3.662
TOTAL INHOUSE RDT&E	2.830	3.369
ANNUAL OPERATING COST	1.089	0.632

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	9	3	6	3
CIVILIAN	4	0	0	4
TOTAL	13	3	6	7

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	77.625	8.731	84.646	121.002	1.000	5.525

...MISSION

THE MISSION OF THE BIOSCIENCE LABORATORY IS TO CONDUCT RESEARCH AND DEVELOPMENT IN THE BIOSCIENCES RELATED TO THE NEEDS OF THE NAVAL ESTABLISHMENT

...CURRENT IMPORTANT PROGRAMS

IMMUNE MECHANISMS OF INFECTIOUS DISEASES
RAPID DETECTION OF MICROORGANISMS
RECOMBINANT DNA TECHNOLOGY
VECTOR COMPETENCE OF MOSQUITOES
TOXIC EFFECTS OF ORGANOMETAL COMPOUNDS IN THE MARINE ENVIRONMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT INCLUDES CLASS 3 CONTAINMENT FACILITIES FOR HANDLING PATHOGENIC VIRUS AND BACTERIA, HYBRIDOMA FACILITY FOR MONOCLONAL ANTIBODY PRODUCTION, CHARACTERIZATION, AND EXPANSION IN TISSUE CULTURE AND LABORATORY ANIMALS, ZILOG COMPUTER SYSTEM, ELECTRON SPIN RESONANCE AND NUCLEAR MAGNETIC RESONANCE SPECTROMETERS, SPECTROFLUOROMETER, AND SCANNING ELECTRON MICROSCOPE, PROGRAMMED CELL FREEZING SYSTEM, 35-L AIRLIFT FERMENTER, DYNATECH ROBOTICS SAMPLING SYSTEM. NBL IS A CONTRACT BASIC RESEARCH LABORATORY WITH SCIENTIFIC AND TECHNICAL STAFF BEING MOSTLY UNIV. CALIFORNIA-BERKELEY EMPLOYEES.

CO. CAPT NORMAN D. FALK

TECH DIR. DR. DONALD L. BIRKIMER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	31.211	33.348
TOTAL PROCUREMENT	0.844	0.840
TOTAL O&M	4.132	4.384
TOTAL OTHER	2.977	3.728
TOTAL ANNUAL LAB	39.164	42.300
TOTAL INHOUSE	21.899	22.727
TOTAL INHOUSE RDT&E	17.780	17.940
ANNUAL OPERATING COST	6.789	5.727

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	16	0	8	8
CIVILIAN	362	32	211	151
TOTAL	378	32	219	159

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
32	112.965	7.746	16.493	137.204	7.584	5.304

...MISSION

MISSION OF LABORATORY IS TO BE THE PRINCIPAL RDT AND E CENTER FOR NAVY SHORE FACILITIES, FIXED SURFACE AND SUBSURFACE OCEAN FACILITIES AND FOR THE NAVY AND MARINE CORPS CONSTRUCTION FORCES.

...CURRENT IMPORTANT PROGRAMS

NAVY SHORE FACILITIES SUPPORT, NAVY SEAFLOOR INSTALLATIONS, AMPHIBIOUS AND ADVANCED BASE TECHNOLOGY. ENVIRONMENTAL PROTECTION. ORGANIC MATERIALS. ENERGY TECHNOLOGY. DEEP OCEAN TECHNOLOGY. OFFSHORE BULK FUEL TRANSFER. INDEPENDENT EXPLORATORY DEVELOPMENT. INDEPENDENT RESEARCH. CONTAINER OFF-LOADING TRANSFER SYSTEM (COTS).

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRESSURE VESSEL FACILITY WITH 9, 18, 34, 72, INCH VESSELS SIMULATION PRESSURES TO OCEAN DEPTHS OF 20,000 FEET. DIVING LOCKER AND EQUIPMENT FOR 10 DIVERS. SEA FLOOR SOILS LAB. ENERGY TEST BED. CLASS G PHOTO LAB. PHYSICAL SECURITY LABS. CHEMISTRY LAB. INSTRUMENTATION LAB. WARPING TUG ELECTROMAGNETIC FACILITY. CORROSION AND METALURGICAL LABS. ENVIRONMENTAL RESEARCH LAB. CDC 8090 TERMINAL WITH HIGH SPEED READER AND LINE PRINTER. DIGITAL MAG TAPE. PEN PLOTTER. CURRENT SESOR LAB. ENERGY MONITORING CAPABILITY. PROTOTYPE MACHINE, WELDING, CARPENTER, AND RIGGING SHOPS. SHALLOW OCEAN SIMULATION FACILITY. MATERIAL TESTING LAB. ELECTRICAL SYSTEMS LAB. CONCRETE MIXING LAB. AGGREGATE PROCESSING LAB. DATA PROCESSING CENTER.

INSTALLATION: CLOTHING & TEXTILE RESEARCH FACILITY

NATICK, MA.

CO. CDR JAMES C. ROBERTSON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	3.116	3.049
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.381	1.463
TOTAL OTHER	0.290	0.054
TOTAL ANNUAL LAB	4.787	4.566
TOTAL INHOUSE	3.788	4.162
TOTAL INHOUSE RDT&E	2.117	2.671
ANNUAL OPERATING COST	0.126	0.253

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1	0	1	0
CIVILIAN	56	1	37	19
TOTAL	57	1	38	19

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	9.160	10.000	3.600	22.760	0.865	0.974

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST & EVALUATION & PROVIDE ENGINEERING SUPPORT IN CLOTHING TEXTILES & RELATED FIELDS ASSOCIATED WITH SERVICE CLOTHING & ENVIRONMENTAL PROTECTIVE CLOTHING.

...CURRENT IMPORTANT PROGRAMS

PHYSIOLOGICAL TESTING METHODOLOGY.
MATERIALS INVESTIGATIONS TO MEET NAVY CLOTHING REQUIREMENTS.
LIFE SUPPORT SYSTEMS DEVELOPMENT FOR PROTECTIVE CLOTHING.
AIRCRAFT/WEAPON SYSTEM PROTECTIVE CLOTHING.
ENVIRONMENTAL PROTECTIVE CLOTHING.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HYDRO-ENVIRONMENT TEMPERATURE LAB, AIR CHAMBER-MARINE TANK REPRODUCES AIR-SEA TEMP CONDITIONS FOR WATER IMMERSION PHYSIOLOGY & BUOYANCY TESTS.
ENVIRONMENTAL TEST CHAMBER FOR EVALUATING PROTECTIVE CLOTHING UNDER WORK STRESS & EXTREME TEMPERATURES.
INSTRUMENTED THERMAL MANIKIN FOR DETERMINING THERMAL INSULATION OF CLOTHING IN WET & DRY ENVIRONMENTS.
THERMAL FLAMMABILITY APPARATUS FOR CONDUCTING FLAME RETARDANCY, FLAMMABILITY & HEAT RESISTANCE MATERIAL TESTING.
CHEMICAL & PHYSICAL TESTING EQUIPMENT FOR CONDUCTING RDT&E ON FABRICS, YARNS, FIBERS, LEATHER, PLASTICS, RUBBER, DYES & FINISHES.
SEWING MACHINES & PATTERN DRAFTING FOR DEVELOPING GARMENTS.

INSTALLATION: COASTAL SYSTEMS CENTER

PANAMA CITY, FL

CO. CAPT C. C. KING

TECH DIR. MR. G. C. DILWORTH, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	59.351	66.649
TOTAL PROCUREMENT	22.142	14.995
TOTAL O&M	11.164	20.911
TOTAL OTHER	8.371	10.162
TOTAL ANNUAL LAB	101.028	112.717
TOTAL INHOUSE	49.412	71.975
TOTAL INHOUSE RDT&E	31.424	40.620
ANNUAL OPERATING COST	20.607	29.548

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	122	0	18	104
CIVILIAN	902	32	450	452
TOTAL	1024	32	468	556

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
648	343.480	42.967	369.393	755.840	49.780	25.763

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR MINE AND UNDERSEA COUNTER-MEASURES, SPECIAL WARFARE, AMPHIBIOUS WARFARE, DIVING AND OTHER NAVAL MISSIONS THAT TAKE PLACE PRIMARILY IN THE COASTAL REGIONS.

...CURRENT IMPORTANT PROGRAMS

MINE AND UNDERSEA COUNTERMEASURES
TORPEDO AND SONAR COUNTERMEASURES. SUBMARINE LAUNCHERS (CM UNIQUE)
SHIP/AIRBORNE MINE COUNTERMEASURES COMBAT SYSTEM INTEGRATION
DIVING, SALVAGE, AND SPECIAL WARFARE
AMPHIBIOUS WARFARE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE- OCEAN SIMULATION FAC TO 2250' DEPTH. HYDROSPACE LAB. SWIMMER/DIVER R&D FAC. GAS ANALYSIS LAB. SONAR RAIL FAC. MAGNETIC TARGET DETECTION & CLASSIFICATION RANGE. MAGNETIC LAB. OPTICAL POSITIONING SYS. CALIBRATION AND STANDARDS FAC. MECHANICAL CALIBRATION LAB. CABLE TEST FAC. ACOUSTIC TEST FAC. TRANSDUCER LAB. PRECISION ACOUSTIC TANK. ACOUSTIC ANAL FAC. SYS DEV AND TEST FAC. LASER LAB. ELECTRONIC TRACKING RANGE, PORTABLE TRACKING & POST RUN ANALYSIS SYS. COUNTERMEASURES EVALUATOR IN REAL-TIME SIMULATION. BURROUGHS 6810 DIGITAL COMPUTER AND ASSOCIATED DATA COMMUNICATIONS SYS. ENVIRONMENTAL MONITORING FAC. SONAR PROCESSING FAC. INTERACTIVE GRAPHICS SYS. PIER SPACE & BOATS TO INCLUDE RESEARCH VESSELS ATHENA I&II, MSO-443 USS FIDELITY. INDUSTRIAL SHOPS. HELIPORT COMPLEX WITH 2 RH53D & 2 UHIE.

INSTALLATION: DAVID W. TAYLOR NAVAL SHIP R&D CENTER

BETHESDA MD

CO. CAPT G. R. GARRITSON

TECH DIR. DR. A. POWELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	187.749	210.424
TOTAL PROCUREMENT	19.882	13.453
TOTAL O&M	36.839	26.328
TOTAL OTHER	14.474	12.062
TOTAL ANNUAL LAB	258.944	262.267
 TOTAL INHOUSE	 133.998	 132.353
TOTAL INHOUSE RDT&E	98.755	104.204
ANNUAL OPERATING COST	50.808	49.015

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	74	2	19	55
CIVILIAN	2550	115	1213	1337
TOTAL	2624	117	1232	1392

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
325	1705.538	98.055	296.515	2100.108	74.002	88.404

...MISSION

TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST, AND EVALUATION (RDT&E) CENTER FOR NAVAL VEHICLES AND LOGISTICS AND TO PROVIDE RDT&E SUPPORT TO THE U.S. MARITIME ADMINISTRATION AND THE MARITIME INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

SURFACE SHIP AND SUBMARINE SILENCING (ACOUSTIC/NON-ACOUSTIC/MACHINERY), SURFACE SHIP SURVIVABILITY, TOPSIDE STRUCTURES AND MACHINERY, PROPULSOR DEVELOPMENT (HYDRODYNAMICS/STRUCTURES/ACOUSTICS), SUBMARINE PRESSURE HULL AND NON-PRESSURE HULL (STRUCTURES/MATERIALS), AERODYNAMICS (JET-VANE YAW CONTROL/X-WING ROTOR SYSTEM/CIRCULATION CONTROL)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEEP WATER ACOUSTIC FACILITY, SHALLOW AND DEEP WATER/HIGH SPEED TOWING BASINS, WIND AND WATER TUNNELS, ANECHOIC FLOW FACILITY, STRUCTURAL EVALUATION LAB, UNDERWATER EXPLOSIONS BARGE/TEST POND, PHYSICAL METALLURGY LAB, WELDING/FABRICATION LABS, MACHINERY DEVELOPMENT LAB, DYNAMIC CONTROL SIMULATOR/COMPUTER, ENVIRONMENTAL PROTECTION LAB, MANEUVERING AND SEAKEEPING/RADIO-CONTROLLED MODEL FACILITY, PRESSURE TANKS/DEEP OCEAN FACILITIES, HIGH SPEED RESEARCH VESSELS, PAINT LAB FUELS LAB, SHOCK AND VIBRATION FACILITY, CENTRAL COMPUTER FACILITY, ELECTRIC PROPULSION TEST CRAFT, TURBO-ELECTRIC PROPULSION LAB, ACOUSTIC MEASUREMENT BARGE/ACOUSTIC DATA ANALYSIS CENTER.

INSTALLATION: DENTAL RESEARCH INSTITUTE.

GREAT LAKES, IL.

CO. CAPT G. E. CLARK

SCI DIR. DR. I. L. SHKLAIR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	1.065	1.020
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.747	0.784
TOTAL ANNUAL LAB	1.812	1.804
TOTAL INHOUSE	1.671	1.664
TOTAL INHOUSE RDT&E	0.924	0.880
ANNUAL OPERATING COST	0.460	0.410

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	31	7	11	20
CIVILIAN	15	4	15	0
TOTAL	46	11	26	20

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	21.264	6.001	9.318	36.583	0.000	1.032

...MISSION

TO CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION IN DENTAL AND ALLIED SCIENCES WITH PARTICULAR EMPHASIS ON PROBLEMS OF DENTAL AND ORAL HEALTH IN NAVY AND MARINE CORPS POPULATIONS AND ON PROBLEMS OF FLEET AND FIELD DENTISTRY.

...CURRENT IMPORTANT PROGRAMS

THE PATHOGENESIS OF ORAL AND DENTAL DISEASES.
EVALUATION OF NEW METHODS AND MATERIALS TO ARREST ORAL DISEASES.
COMPUTER ASSISTED DIAGNOSIS AND TREATMENT OF DENTAL EMERGENCIES.
AUTOMATED APPLICATIONS IN NAVY DENTAL EPIDEMIOLOGY.
RAPID IDENTIFICATION OF DESTRUCTIVE PERIODONTAL DISEASE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMINO ACID ANALYZER	ATOMIC ASORPTION UNIT
LIQUID SCINTILLATION COUNTER	MIN COMPUTER
GAS CHROMATOGRAPH UNIT	PHOTOMICROSCOPE
ELECTRON MICROSCOPE	CRYMICROTOME
DIAZO PROCESSOR	ANIMAL SURGERY ROOM
SPECTROPHOTOMETERS	THERMAL BALANCE
VIVARIUM	INCUBATORS
CENTRIFUGES	BIOLOGICAL SAFETY
CABINET	FRACTIONATORS
PHOTO LAB	OSCILLISCOPE
EQUIPMENT REPAIR	TISSUE CULTURE
SHAKERS	

INSTALLATION: ENVIRONMENTAL PREDICTION RESEARCH FACILITY MONTEREY, CA.

CO. CAPT K. L. VAN SICKLE

TECH DIR. DR. J. HOVERMALE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	5.292	6.517
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.552	0.353
TOTAL OTHER	0.691	0.518
TOTAL ANNUAL LAB	6.535	7.388
TOTAL INHOUSE	8.055	8.841
TOTAL INHOUSE RDT&E	2.823	3.188
ANNUAL OPERATING COST	1.237	1.028

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	2	6	8
CIVILIAN	34	8	28	6
TOTAL	48	10	34	14

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	5.446	14.040	5.098	24.584	0.000	1.665

...MISSION

CONDUCT RESEARCH & DEVELOPMENT DIRECTED TOWARD PROVIDING OBJECTIVE LOCAL REGIONAL AND GLOBAL ENVIRONMENTAL ANALYSIS AND PREDICTION TECHNIQUES
PROVIDE PLANNING, MODELING & EVALUATION SERVICES TO DETERMINE THE EFFECT OF ENVIRONMENTAL ELEMENTS ON NAVAL WEAPONS SYSTEMS

...CURRENT IMPORTANT PROGRAMS

DEVELOP SYSTEM FOR PROCESS/DISPLAY OF ENVIRONMENTAL SATELLITE DATA
DEVELOP COMPUTER MODELS WHICH ANALYZE/ASSIMILATE ATMOSPHERIC DATA
DEVELOP TECHNIQUES PREDICT/DIAGNOSE ATMOS EFFECTS ON WEAPONS SYSTEMS
DEVELOP OBJECTIVE LOCAL/REGIONAL ATMOS ANALYSIS/PREDICTION TECHNIQUES
DEVELOP SYNOPTIC/SUBSYNOPTIC AND MESOSCALE ATMOS PREDICTION MODELS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CAPABILITY OF RECEIVING, ENHANCING AND ANALYZING REMOTEL SENSED ATMOS DATA
CAPABILITY OF BUILDING, ANALYZING AND MODIFYING GLOBAL, REGIONAL AND LOCAL WEATHER MODELS
CAPABILITY TO DEVELOP ATMOS PREDICTION AIDS FOR USE BY NON-GRADUATE METEOROLOGICAL PERSONNEL
ECLIPSE S250 COMPUTER ACCESS TO CYBER 203 AND 175 COMPUTERS

INSTALLATION: EXPLOSIVE ORDNANCE DISPOSAL FACILITY

INDIAN HEAD, MD.

CO. CAPT R. L. MASTEN

TECH DIR. MR. L. A. DICKINSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	11.137	19.827
TOTAL PROCUREMENT	12.889	14.695
TOTAL O&M	2.773	3.100
TOTAL OTHER	0.280	0.300
TOTAL ANNUAL LAB	27.079	37.922
TOTAL INHOUSE	21.838	27.660
TOTAL INHOUSE RDT&E	8.268	10.173
ANNUAL OPERATING COST	5.309	5.510

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	41	1	6	35
CIVILIAN	164	1	34	130
TOTAL	205	2	40	165

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1172	71.578	22.176	90.643	184.397	5.987	5.201

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION CONCERNING BOTH THE DISPOSAL AND RENDERING SAFE PROCEDURES FOR CONVENTIONAL AND SPECIAL WEAPONS, GUIDED MISSILES, UNDERWATER WEAPONS, EXPLOSIVES, BIO AND CHEM MUNITIONS, BOTH U.S. AND FOREIGN, PLUS THE REQUIRED TOOLS AND EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF RENDER SAFE AND DISPOSAL TOOLS FOR CONVENTIONAL MUNITIONS
DEVELOPMENT OF SPECIAL OPERATIONS SPECIAL TECHNOLOGY
TERRORIST DEVICE COUNTERMEASURES
IMPROVISED NUCLEAR DEVICE COUNTERMEASURES
EXPLOSIVE RANGE CLEARANCE TECHNIQUES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOP EXPLOSIVE ORDNANCE DISPOSAL (EOD) PROCEDURE, PREPARE AND PUBLISH EOD PUBLICATIONS FOR JOINT-SERVICE USE. CONDUCT EXP. AND ADV. DEVELOPMENT LEADING TO SPECIALIZED TOOLS AND EQUIP. NEEDED TO LOCATE, IDENTIFY, RECOVER, RENDER-SAFE AND DISPOSE OF ALL TYPES OF EXPLOSIVE ORDNANCE. PREPARE AND MAINTAIN DOCUMENTATION FOR EOD TOOLS AND EQUIP. CONDUCT FIRST ARTICLE INSPECTION ON EOD TOOLS BEING PRODUCED FOR ALL SERVICES. CONDUCT INITIAL EVALUATION OF FOREIGN EXPLOSIVE ORDNANCE. CONDUCT EXP. ENGR DEVELOPMENT LEADING TO ACCESS AND DISABLEMENT COUNTERMEASURES AGAINST IMPROVISED NUCLEAR DEVICES. CAPABILITY OF TESTING EOD TOOLS TO A DEPTH OF 400 FT IN A DIVING CHAMBER. CAPABILITY OF ANALYZING HIGH SPEED EVENTS WITH FLASH X-RAYS AND PHOTOS.

INSTALLATION: HEALTH RESEARCH CENTER

SAN DIEGO, CA.

CO. CAPT M. F. FORNES

CH SCI. DR. L. C. JOHNSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	3.177	3.366
TOTAL PROCUREMENT	0.000	0.000
TOTAL Q&M	0.000	0.000
TOTAL OTHER	0.984	1.038
TOTAL ANNUAL LAB	4.161	4.404
TOTAL INHOUSE	3.489	3.424
TOTAL INHOUSE RDT&E	2.505	2.386
ANNUAL OPERATING COST	1.121	0.831

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	31	11	29	2
CIVILIAN	62	11	19	43
TOTAL	93	22	48	45

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	19.052	7.159	0.000	26.211	0.147	1.584

...MISSION

TO SUPPORT FLEET OPERATIONAL READINESS THROUGH RESEARCH, DEVELOPMENT, TEST, AND EVALUATION OF BIOMEDICAL AND PSYCHOLOGICAL ASPECTS OF NAVY AND MARINE CORPS PERSONNEL HEALTH AND PERFORMANCE.

...CURRENT IMPORTANT PROGRAMS

EVALUATION OF HEALTH RISKS FOR NAVY OCCUPATIONS
HUMAN PERF EFFECTIVENESS/PHYSIO ADAPTATION DURING SUSTAINED OPERATIONS
DEVELOPMENT OF STANDARDS FOR OBESITY & PHYSICAL FITNESS FOR NAVY PERS
DEVELOPMENT/TESTING/COMPUTERIZED OPERATIONAL MEDICAL INFO SYSTEMS
PSYCHOPHARMACOLOGICAL TECHNIQUES TO ENHANCE PERFORMANCE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ELECTROENCEPH MONITORING OF SLEEP PATTERNS
CARDIOVASCULAR STRESS LAB
MUSCLE STRENGTH TESTING LAB
COMPUTER STORAGE TOTAL USN/USMC HEALTH DATA
MEDICAL INFORMATION SYSTEMS

INSTALLATION: MEDICAL RESEARCH INSTITUTE

BETHESDA MARYLAND

CO. CAPT R. L. SPHAR

SCI DIR. DR. L. A. KIESOW

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	17.747	19.144
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.004	0.000
TOTAL OTHER	6.824	6.031
TOTAL ANNUAL LAB	24.075	25.175
TOTAL INHOUSE	22.302	23.984
TOTAL INHOUSE RDT&E	15.974	17.953
ANNUAL OPERATING COST	8.878	9.757

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	243	46	74	169
CIVILIAN	197	37	97	100
TOTAL	440	83	171	269

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	159.933	11.720	47.210	218.863	7.504	14.264

...MISSION

CONDUCT BASIC & APPLIED RESEARCH & DEVELOPMENT CONCERNED
WITH THE HEALTH, SAFETY AND EFFICIENCY OF NAVY AND MARINE CORPS
PERSONNEL

...CURRENT IMPORTANT PROGRAMS

COMBAT CARE TECHNOLOGY: WOUND HEALING/SHOCK TISSUE TRANSPLANTATION
MICROBIOLOGY VACCINE: DEV RAPID DIAGNOSIS EPIDEMIOLOGY
HYPERBARIC MEDICINE: PHYSIOLOGY, TREATMENT, SAFETY
ENVIRONMENTAL STRESS: THERMAL, CHEMICAL, TOXIC
BONE MARROW TRANSPLANTATION/STEM CELLS GROWTH FACTORS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HYPERBARIC RESEARCH FACILITY WITH MAN-RATED HYPERBARIC CHAMBERS
HUMAN PHYSIOLOGICAL & HEAT STRESS EQUIPMENT & FACILITIES
HUMAN TISSUE PRESERVATION & STORAGE EQUIPMENT & FACILITIES
BIOHAZARDOUS MATERIALS HANDLING LAB EQUIPMENT & FACILITIES
TOXICOLOGY EVALUATION EQUIP & FACILITIES INCLUDE HYPERBARIC CHAMBERS
TRANSMISSION & SCANNING ELECTRON MICROSCOPES FLUORESCENT ANTIBODY CELL
SORTER & COMPUTERS
EXPERIMENTAL ANIMAL FACILITIES, ANIMAL HOUSE & OPERATING ROOMS
LAB EQUIPMENT & FACILITIES FOR BASIC & APPLIED BIOCHEMICAL
MICROBIOLOGICAL & PSYCHOLOGICAL & TRANSPLANTATION STUDIES

INSTALLATION: MEDICAL RESEARCH UNIT NO.2

MANILA, PHILIPPINES

CO. CAPT V. D. SCHINSKI

ACT SCI DIR. DR. C. G. HAYES

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	2.739	2.615
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.989	0.989
TOTAL ANNUAL LAB	3.728	3.604
TOTAL INHOUSE	3.728	3.604
TOTAL INHOUSE RDT&E	2.739	2.615
ANNUAL OPERATING COST	1.486	1.553

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	25	11	11	14
CIVILIAN	48	1	8	40
TOTAL	73	12	19	54

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	15.439	6.654	2.400	24.493	0.130	0.905

...MISSION

TO CONDUCT RESEARCH ON, AND DEVELOP MEANS FOR DIAGNOSIS AND TREATMENT OF INFECTIOUS DISEASES OF MILITARY IMPORTANCE THAT ARE ENDEMIC IN THE ASSIGNED GEOGRAPHICAL AREA. TO PERFORM OTHER SUCH TASKS AS DIRECTED BY COMMANDER, NAVMEDCOM, AND CO, NMRDC.

...CURRENT IMPORTANT PROGRAMS

PROVIDE SUPPORT TO NAMRI FOR THE MALARIA VACCINE PROGRAM.
COLONIZE MALARIA VECTORS.
CLASSIFY SPECTRUM OF CLINICAL DIAGNOSIS ASSOC. WITH DENGUE & JAP ENCEPH.
IDENTIFY AGENTS THAT CAUSE DIARRHEA IN SOUTHEAST ASIA.
RAPID DIAGNOSIS AND TREATMENT OF SCHISTOSOMIASIS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FULLY EQUIPPED AND FUNCTIONAL VIROLOGY, MICROBIOLOGY, PARASITOLOGY, ENTOMOLOGY, AND CLINICAL LABORATORIES IN BOTH MANILA, RP AND JAKARTA, INDONESIA. DETACHMENT HAS AN ESTABLISHED ANIMAL FACILITY. NAMRU-2 MANILA HAS THE PREMIER INSECTARY IN THE PHILIPPINES. WANG VS ADP SYSTEM FOR BIOSTATISTICAL APPLICATIONS. DETACHMENT HAS BEEN GIVEN FUNDS TO ESTABLISH A STATE OF THE ART INTENSIVE CARE UNIT FOR USE IN THEIR STUDIES IN FY85.

INSTALLATION: MEDICAL RESEARCH UNIT 3

CAIRO EGYPT

CO. CAPT CRAIG K. WALLACE

SCI DIR. DR. AFTAB A. ANSARI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	4.289	3.960
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.142	0.174
TOTAL OTHER	0.884	0.900
TOTAL ANNUAL LAB	5.315	5.034
TOTAL INHOUSE	5.315	5.034
TOTAL INHOUSE RDT&E	4.289	3.960
ANNUAL OPERATING COST	0.980	0.997

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	28	12	14	14
CIVILIAN	205	18	69	136
TOTAL	233	30	83	150

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	89.472	8.962	61.072	159.506	9.054	1.184

...MISSION

TO CONDUCT RDT&E RELATING TO THE HEALTH SAFETY AND READINESS OF NAVAL PERSONNEL ASSIGNED TO S.W.ASIA AND AFRICA AND TO PERFORM SUCH OTHER FUNCTIONS AS MAY BE DIRECTED BY HIGHER AUTHORITY.

...CURRENT IMPORTANT PROGRAMS

EPIDEM.AND PREV.OF MIL.RELEVANT INFECT.DISEASES IN S.W.ASIA AND AFRICA.
THERAPY OF INFECT. DISEASE IN S.W.ASIA AND AFRICA
RAPID & EARLY DIAG.OF INFECT.DISEASES OF MIL.IMPORT.IN S.W.ASIA & AFRICA

...FUNCTIONS/EQUIPMENT/CAPABILITIES

A STATE OF THE ART MEDICAL RESEARCH LABORATORY WITH ANIMAL FACILITIES AND A 40-BED WARD. CAPABILITIES IN ADVANCED TECHNIQUES,SEROLOGY,HYBRIDOMA TECH. AND HYBRIDIZATION OF DNA ALONG WITH PRODUCT OF DNA PROBES, AMINO ACID ANALYSIS,FLUORESCENT MICROSCOPY AND COMPUTER LINKED ELISA READERS,CYTOFLUOROGRAP,HIGH PRESSURE LIQUID CHROMATOGRAPHY,GAS LIQUID CHROMATOGRAPHY,SPECTRO PHOTOMETER, BETA-SCINTILLATION COUNTER, GAMMA-COUNTER,GAMMA CELL 40.CENTRIFUGES, ULTRACENTRIFUGES AND CRYO-PRESERVATION.HAZARDOUS MATERIAL LABORATORY.

INSTALLATION: OCEAN R & D ACTIVITY

BAY ST. LOUIS, MS.

CO. CAPT R. P. ONORATI

TECH DIR. DR. J. E. ANDREWS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	40.830	35.211
TOTAL PROCUREMENT	0.000	0.064
TOTAL O&M	0.591	0.620
TOTAL OTHER	1.423	1.666
TOTAL ANNUAL LAB	42.844	37.561
TOTAL INHOUSE	18.075	23.646
TOTAL INHOUSE RDT&E	16.230	21.912
ANNUAL OPERATING COST	7.714	8.084

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	18	0	11	2
CIVILIAN	312	77	209	103
TOTAL	325	77	220	105

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	81.500	46.500	85.200	213.200	17.203	13.536

...MISSION

TO CARRY OUT A BROAD BASED RDT&E PROGRAM IN OCEAN SCIENCE & TECHNOLOGY WITH EMPHASIS ON UNDERSTANDING OCEAN PROCESSES THRU MEASUREMENT AND ANALYSIS, AND THE EFFECTS OF THIS OCEAN ENVIRONMENT ON NAVY SYSTEMS AND OPERATIONS.

...CURRENT IMPORTANT PROGRAMS

REMOTE SENSING OCEANOGRAPHY & OCEAN MODELING TO SUPPORT OCEAN FORECASTING. ACOUSTIC BOUNDARY INTERACTION TO SUPPORT SURV & WPN SYS DEV/PERF. BIOLUMINESCENCE & HYDRODYNAMICS TO SUPPORT NON-ACOUSTIC ASW. PATTERN ANALYSIS & SENSOR DEVELOPMENT TO SUPPORT MC&G.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WAVE CURRENT SIMULATOR, INTERACTIVE DIGITAL SATELLITE IMAGE PROCESSING SYS, OCEAN BOTTOM SEISMOMETERS, GEOTECHNICAL LAB, SCANNING ELECTRON MICROSCOPE & X-RAY FLUORESCENT FACILITY, PATTERN ANALYSIS LAB, MAGNETIC OBSERVATORY.

INSTALLATION: OCEAN SYSTEMS CENTER

SAN DIEGO, CA.

CO. CAPT F. M. PESTORIUS

TECH DIR. MR. R. M. HILLYER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	272.700	315.822
TOTAL PROCUREMENT	49.830	42.355
TOTAL O&M	85.573	86.545
TOTAL OTHER	34.936	32.406
TOTAL ANNUAL LAB	443.039	477.128
TOTAL INHOUSE	206.084	218.580
TOTAL INHOUSE RDT&E	135.720	148.923
ANNUAL OPERATING COST	59.753	65.296

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	270	2	53	217
CIVILIAN	2608	184	1404	1204
TOTAL	2878	186	1457	1421

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2719	1270.241	196.533	218.031	1684.805	54.388	57.802

...MISSION

TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR COMMAND CONTROL, COMMUNICATIONS, OCEAN SURVEILLANCE, SURFACE- AND AIR-LAUNCHED UNDERSEA WEAPONS SYSTEMS, AND SUBMARINE ARCTIC WARFARE.

...CURRENT IMPORTANT PROGRAMS

OCEAN SURVEILLANCE SYS WITH SOSUS UPDATE AND MULTI-SENSOR INTEGRATION, COMMAND CONTROL AND COMMUNICATIONS SYS ARCHITECTURE AND ENGINEERING, ADVANCED SURFACE AND AIR LAUNCHED UNDERSEA WEAPONS AND SURFACE ASW SYS, TECHNOLOGY DEVELOPMENTS SUCH AS ADV MARINE BIO SYS, ARCTIC SUB OPS, OCEAN ENGINEERING, ELECTRONIC WARFARE AND ARTIFICIAL INTELLIGENCE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ARCTIC RESEARCH FACILITY; C3 SITE, INCL TACTICAL FLAG COMMAND CENTER (TFCC), ADVANCED COMMAND CONTROL ARCHITECTURE TEST BED (ACCAT), ADVANCED COMBAT DIRECTION SYSTEM (ACDS) DEVELOPMENT SITE, AND INTEGRATED BATTLE GROUP TACTICAL TRAINER (IBGTT); OCEAN SURVEILLANCE FACILITY; ACOUSTIC RESEARCH CENTER (ARC) WITH SATELLITE DATA LINKS; INTEGRATED UNDERSEA SURVEILLANCE SYS (IUSS) FACILITY; MICROWAVE AND MILLIMETER WAVE ANTENNA PATTERN RANGE COMPLEX; OCEANOGRAPHIC RESEARCH TOWER; STABLE SEMI-SUBMERGED PLATFORM; USS DOLPHIN, EXPERIMENTAL SUB; TRANSDUCER EVALUATION CENTER; MICRO-ELECTRONICS LAB COMPLEX; SIMULATION AND REAL-TIME COMPUTER FACILITIES FOR DEVELOPMENT OF OCEAN SURVEILLANCE AND ASW SYSTEMS; SHIP MOTION SIMULATOR; BIO-SCIENCE FACILITY ENGAGED IN RESEARCH, TRAINING, AND HANDLING OF MARINE MAMMALS.

INSTALLATION: OFFICE OF NAVAL RESEARCH

WASHINGTON D.C.

CO. RADM J. B. MOONEY, JR.

TECH DIR. DR. M. K. MOSS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	621.131	742.269
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	140.203	146.512
TOTAL OTHER	5.729	5.975
TOTAL ANNUAL LAB	767.063	894.756
TOTAL INHOUSE	24.978	24.692
TOTAL INHOUSE RDT&E	22.725	22.349
ANNUAL OPERATING COST	15.389	15.838

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	41	5	30	11
CIVILIAN	415	89	117	298
TOTAL	456	94	147	309

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	77.852	12.565	90.417	0.000	0.000

...MISSION

RESPONSIBLE FOR LEADERSHIP OF NAVY RESEARCH PROGRAM MANAGEMENT AND DIRECTION OF ONR CONDUCTED RDT&E AND OF THE NAVY-WIDE PATENT PROGRAM, DEVELOPMENT OF NAVY-WIDE RDT&E FOR ASN(RES), WORLD-WIDE RESEARCH INFO AND CONTRACT MGMT OF FEDERALLY FUNDED UNIVERSITY RESEARCH

...CURRENT IMPORTANT PROGRAMS

CONTRACT RESEARCH AND TECHNOLOGY PROGRAMS
NAVY PATENT PROGRAM
NAVY-WIDE RDT&EN APPROPRIATION ADMINISTRATION
FOCAL POINT FOR WORLD-WIDE RESEARCH INFORMATION
CONTRACT MANAGEMENT PROGRAM AT EDUCATIONAL INSTITUTIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ADMINISTRATION OF RESEARCH PROGRAMS IN PHYSICAL SCIENCES, MATHEMATICAL AND INFORMATION SCIENCES, BIOLOGICAL SCIENCES, PSYCHOLOGICAL SCIENCES, ARCTIC & EARTH SCIENCES, MATERIAL SCIENCES, OCEAN SCIENCE AND TECHNOLOGY
ADMINISTRATION OF TECHNOLOGY PROGRAMS IN NAVAL VEHICLE AND WEAPONS TECHNOLOGY, SENSOR AND CONTROL TECHNOLOGY, ANALYSIS AND SUPPORT. FIELD ACTIVITIES INCLUDE NRL, NORDA, AND NDL. MAINTAINS RESEARCH RESERVE PROGRAM. COORDINATES NAVAL RESEARCH AND PROMOTES COOPERATIVE RESEARCH EFFORTS WITHIN NAVY, OTHER DOD, NSF, NASA, DEPT OF ENERGY AND OTHER GOVERNMENT RESEARCH GROUPS. SUPPORT AND ADMINISTRATION OF NAVAL RESEARCH ADVISORY COMMITTEE

INSTALLATION: ORDNANCE MISSILE TEST FACILITY

WHITE SANDS, N.M.

CO. CAPT A. F. SCHROEDER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	5.275	3.376
TOTAL PROCUREMENT	2.869	3.177
TOTAL O&M	0.347	0.003
TOTAL OTHER	4.694	4.118
TOTAL ANNUAL LAB	13.185	10.674
TOTAL INHOUSE	5.164	4.341
TOTAL INHOUSE RDT&E	2.850	1.180
ANNUAL OPERATING COST	1.879	2.348

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	87	0	5	82
CIVILIAN	57	0	7	50
TOTAL	144	0	12	132

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
95	9.364	38.358	166.886	214.608	6.121	4.072

...MISSION

CONDUCT AND SUPPORT ASSIGNED NAVY GUIDED MISSILE, ROCKET, GUN AND DIRECTED ENERGY PROGRAMS, INCLUDING GROUND AND FLIGHT TESTING; TO PARTICIPATE IN THE OPERATION OF THE DOD MISSILE TEST RANGE AT WHITE SANDS; AND TO PERFORM ADDITIONAL TASKS AS DIRECTED BY COMNAVSEASYSOM.

...CURRENT IMPORTANT PROGRAMS

STANDARD MISSILE 1 AND 2/AEGIS FLIGHT TESTING
CRUISE MISSILE FLIGHT TESTING
RAM FLIGHT TESTING
VERTICAL LAUNCHER TESTING
UPPER ATMOSPHERE RESEARCH ROCKET LAUNCHING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT TEST TERRIER/TARTAR/STANDARD/SAM GUIDED MISSILES AND PROJECTILES
LAUNCH VARIOUS SOUNDING ROCKETS FOR UPPER ATMOSPHERIC STUDY
CONDUCT NAVY AIR WEAPONS TESTS
LAUNCH VARIOUS ROCKETS IN SUPPORT OF NASA PROJECTS
LAUNCH VARIOUS ROCKETS IN SUPPORT OF AIR FORCE PROJECTS
CONDUCT VARIOUS DEVELOPMENT TESTS FOR SSM AND SAM PROJECTS
PROVIDE DRONE SUPPORT AND VANDAL MISSILE HIGH SPEED TARGETS
ASSIST IN OPEVAL OF CRUISE MISSILE
5-INCH GUIDED PROJECTILE LAUNCH CAPABILITY
PROVIDE WARHEAD AND EOD ANALYSIS ARENA

INSTALLATION: PACIFIC MISSILE TEST CENTER

POINT MUGU, CA.

CO. COMO J. R. WILSON, JR.

TECH DIR. MR. K. I. LICHTI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	190.170	290.065
TOTAL PROCUREMENT	130.560	181.129
TOTAL O&M	131.224	120.484
TOTAL OTHER	84.508	78.962
TOTAL ANNUAL LAB	536.462	620.640
TOTAL INHOUSE	296.319	368.418
TOTAL INHOUSE RDT&E	130.461	203.045
ANNUAL OPERATING COST	71.456	74.408

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1052	11	396	656
CIVILIAN	3787	150	1156	2631
TOTAL	4839	161	1552	3287

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
27088	1013.333	373.722	3493.199	4880.254	173.693	151.640

...MISSION

PERFORM DEVELOPMENT TEST AND EVALUATION DEVELOPMENT SUPPORT, AND FOLLOW-ON ENGINEERING, LOGISTIC, AND TRAINING SUPPORT FOR NAVAL WEAPONS, WEAPONS SYSTEMS, AND RELATED DEVICES, AND PROVIDE MAJOR RANGE, TECHNICAL AND BASE SUPPORT FOR NAVY RDT&E, FLEET, AND OTHER DOD AND GOVT USERS.

...CURRENT IMPORTANT PROGRAMS

AIR AND SURFACE LAUNCHED CRUISE MISSILE & STRATEGIC SYSTEMS. DEVELOPMENT SUPT, T&E & ISE ON AIR LAUNCHED GUIDED WEAPONS AND CONVENTIONAL ORDNANCE. EW SYS READINESS & MISSION PERFORMANCE. EWSSA, SUPT EQUIP DEVELOPMENT. TARGETS DEVELOPMENT AND LIFE CYCLE TARGETS MANAGEMENT. RANGE SYSTEMS DEVELOPMENT. FLEET READINESS SUPPORT. MOBILE SEA RANGE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LABORATORIES FOR AIRBORNE WEAPONS SYSTEMS INTEGRATION, TEST, AND EVALUATION INCLUDING SOFTWARE SUPPORT AND ELECTRONIC WARFARE SYSTEMS. LABS INCLUDE HARDWARE-IN-THE-LOOP SIMULATION, ENVIRONMENTAL TEST/RELIABILITY GROWTH, ANECHOIC MEASUREMENTS, AND ALL UP ROUND TEST. A 32,000 SQ MI SEA TEST RANGE PROVIDES FOR FLIGHT TEST OF AIRCRAFT AND MISSILE SYSTEMS RANGE INSTRUMENTATION INCLUDES C-BAND RADARS, L AND S-BAND TELEMETRY, DATA TRANSMISSION, DISPLAY, AND REDUCTION, AIR AND SEA TARGETS WITH VARIOUS AUGMENTATION, COMMAND CONTROL/FLIGHT TERMINATION, LAUNCH AND RECOVERY, AND COMMUNICATIONS. A 700 SQ MI UNDERWATER RANGE AT BARKING SANDS, HAWAII, PROVIDES FLEET TRAINING SUPPORT IN AIR, SURFACE, AND ASW WARFARE. PMTC AIRCRAFT PROVIDE EXTENSIVE DATA COVERAGE TO TRIDENT PACIFIC TESTS & TOMAHAWK INLAND FLIGHTS FROM PMTC TO UTAH TEST RANGE.

INSTALLATION: PERSONNEL RESEARCH & DEVELOPMENT CENTER

SAN DIEGO, CA.

CO. CAPT J. W. RENARD

TECH DIR. DR. J. W. TWEEDDALE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	18.453	17.986
TOTAL PROCUREMENT	0.010	0.000
TOTAL O&M	8.600	8.225
TOTAL OTHER	1.984	2.170
TOTAL ANNUAL LAB	29.047	23.381
TOTAL INHOUSE	17.011	16.656
TOTAL INHOUSE RDT&E	10.997	12.296
ANNUAL OPERATING COST	4.774	5.741

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	24	3	19	5
CIVILIAN	296	94	236	60
TOTAL	320	97	255	65

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3	65.792	18.417	0.000	84.209	0.670	8.723

...MISSION

PRINCIPAL NAVY RDT&E CENTER FOR MANPOWER, PERSONNEL, EDUCATION, TRAINING AND HUMAN FACTORS AND FOR PROVIDING TECHNICAL SUPPORT TO THE CHIEF OF NAVAL OPERATIONS IN THESE AREAS.

...CURRENT IMPORTANT PROGRAMS

MANPOWER MANAGEMENT
EDUCATION AND TRAINING
PERSONNEL ADMINISTRATION
ORGANIZATIONAL MANAGEMENT
HUMAN PERFORMANCE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

IBM 4341 COMPUTER SYSTEM WITH COMMUNICATIONS CAPABILITY TO OTHER COMPUTERS, VAX 11/780 WITH ARPANET ACCESS WHICH SUPPORTS THE NAVY LABORATORY COMPUTER NETWORK, PDP 11/45, BIOTECHNOLOGY DATA ACQUISITION SYSTEMS, VARIOUS CRT AND PRINTING DEVICES INTERFACING WITH THE NAVAL OCEAN SYSTEMS CENTER UNIVAC 1100/2 COMPUTER.

INSTALLATION: RESEARCH LABORATORY

WASHINGTON DC

CO. CAPT J. P. O'DONOVAN

DIR OF RSCH. DR. T. COFFEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	338.336	345.779
TOTAL PROCUREMENT	2.697	2.756
TOTAL O&M	10.082	10.804
TOTAL OTHER	26.679	27.488
TOTAL ANNUAL LAB	377.794	386.327
TOTAL INHOUSE	244.120	249.188
TOTAL INHOUSE RDT&E	218.520	222.802
ANNUAL OPERATING COST	74.277	87.583

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	146	2	75	71
CIVILIAN	3219	679	1515	1704
TOTAL	3365	681	1590	1775

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1072	2348.281	192.677	495.681	3036.639	101.306	136.302

...MISSION

TO CONDUCT A BROADLY BASED MULTIDISCIPLINARY PROGRAM OF SCIENTIFIC RESEARCH AND ADVANCED TECHNOLOGICAL DEVELOPMENT DIRECTED TOWARD NEW AND IMPROVED MATERIALS, EQUIPMENT, TECHNIQUES, SYSTEMS, AND RELATED OPERATIONAL PROCEDURES FOR THE NAVY.

...CURRENT IMPORTANT PROGRAMS

ADVANCED ECM AND DECOYS FOR NAVY EW SYSTEMS
 ADVANCED ACOUSTIC AND NON-ACOUSTIC SUBMARINE DETECTION PROGRAMS
 SATELLITE PROGRAMS
 LOW OBSERVABLES TECHNOLOGY
 DIRECTED ENERGY DEVICES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CORPORATE RESEARCH LABORATORY OF THE NAVY. PRIMARY AREAS ARE MATERIALS SCIENCE AND TECHNOLOGY, SPACE SCIENCE AND TECHNOLOGY, RADAR, ELECTRONIC WARFARE, LASER TECHNOLOGY, OPTICS, OPTICAL WARFARE, ELECTRONIC DEVICES, PLASMA AND RADIATION PHYSICS, INTELLIGENCE SUPPORT, UNDERSEA SURVEILLANCE, LOW OBSERVABLES TECHNOLOGY. MAJOR FACILITIES INCLUDE ACOUSTIC STANDARD AND CALIBRATION FACILITIES, BIOMOLECULAR ENGINEERING FACILITY, HIGH LEVEL RADIATION LABORATORY, ENCLOSED 11,500 CUBIC FOOT FIRE TEST FACILITY, DIVERSE HIGH ENERGY LASERS, 200 KILOGAUSS HIGH FIELD MAGNET FACILITY, SPACE SIMULATION FACILITIES, MAJOR PLASMA PHYSICS FACILITIES, ELECTRONIC WARFARE CENTRAL TARGET SIMULATOR, CLASS VI COMPUTER, AND FOUR ORION AIRCRAFT FOR RESEARCH SUPPORT.

INSTALLATION: SUBMARINE MEDICAL RESEARCH LABORATORY

GROTON, CT.

CO. CAPT W. C. MILROY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	2.228	2.279
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.010	0.057
TOTAL OTHER	0.918	1.095
TOTAL ANNUAL LAB	3.151	3.431
 TOTAL INHOUSE	 3.151	 3.431
TOTAL INHOUSE RDT&E	2.228	2.279
ANNUAL OPERATING COST	1.086	0.999

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	86	9	18	23
CIVILIAN	55	16	31	24
TOTAL	91	25	44	47

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	40.514	14.099	0.000	54.618	1.315	1.956

...MISSION

TO CONDUCT MEDICAL RESEARCH AND DEVELOPMENT AS IT RELATES TO SUBMARINE SHIPBOARD, DIVING AND AMPHIBIOUS ENVIRONMENTS.

...CURRENT IMPORTANT PROGRAMS

COMPUTER ASSISTED DIAGNOSIS PROGRAMS FOR CORPSMEN ABOARD NUCLEAR SUBS. AUDITORY AND VISUAL T AND E OF SUBMARINES AND DIVERS PHYSIOLOGICAL PSYCHOLOGICAL RESEARCH IN COLD WEATHER. HUMAN FACTORS VISION AUDITORY RSCH IN ADVANCED SONAR SYSTEMS AND HUMAN FACTORS SUB INFO PROCESSING. HEALTH AND LONGEVITY OF NUCLEAR SUBMARINE CREWS. NUCLEAR SUB ATMOSPHERE EVAL.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC AND APPLIED RESEARCH COMPETENCE IN CARDIOPULMONARY, THERMAL, AND HYPERBARIC PHYSIOLOGY, BIOCHEMISTRY, AUDITION, VISION, HUMAN FACTORS ENG, HYPERBARIC AND MECHANICAL SERVICES, ELECTRICAL INSTRUMENTATION AND REPAIRS, COMPUTER APPLICATIONS, ANIMAL SCIENCES, TECHNICAL LIBRARY, GRAPHIC ARTS, PHOTOGRAPHY, MODEL MAKING, HYPERBARIC CHAMBER - HUMAN 150 PSI, ANIMAL 800 PSI AND 1000 PSI, SURGICAL SUITE, COMPUTER APPLICATIONS FACILITY, CLOSED CIRCUITRY SYSTEM, GAS CHROMATOGRAPHS, EEG, DOPPLER SYSTEM, SONAR STACK SIMULATION TEST SYSTEM, FLUIDIC CONTROL CONSOLE, RESPIRATORY MASS SPECTROMETER.

INSTALLATION: SURFACE WEAPONS CENTER

DAHLGREN VIRGINIA

CO. CAPT J. R. WILLIAMS

TECH DIR. DR. L. L. HILL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	331.206	326.104
TOTAL PROCUREMENT	161.176	72.318
TOTAL O&M	75.455	53.652
TOTAL OTHER	55.185	21.573
TOTAL ANNUAL LAB	623.022	473.647
 TOTAL INHOUSE	 245.162	 251.543
TOTAL INHOUSE RDT&E	139.476	153.438
ANNUAL OPERATING COST	121.926	127.863

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	104	0	33	71
CIVILIAN	5173	242	2389	2784
TOTAL	5277	242	2422	2855

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5052	1680.942	205.005	1240.175	3126.122	107.500	163.496

...MISSION

THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR SURFACE SHIP WEAPONS, ORDNANCE, MINES AND STRATEGIC SYSTEMS SUPPORT.

...CURRENT IMPORTANT PROGRAMS

STRATEGIC SYSTEMS-TRIDENT, POSEIDON, MK500, MISSILE MATERIELS, TARGETING. COMBAT-SYSTEMS-AEGIS, DDG-51, CV/CVN, CGN-38, DDG-993, DD-963, WEAPON SYSTEMS-TOMAHAWK, SM-2, GUIDED PROJECTILE, HI POWER RADIATION. UNDERWATER SYSTEMS-CAPTOR, QUICKSTRIKE, MINES, MK-48 ADCAP, WARHEADS. ELECTRONIC SYSTEMS-SLQ-32, SLQ-17, AN/SPY-1, NUCLEAR WEAPONS EFFECTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE WIND TUNNELS UP TO MACH 18, 1.75 MILLION GALLON HYDROBALLISTIC TANK, MAGNETIC SILENCING FACILITY, PBM DISPAC PRODUCTION FACILITY. FACILITIES FOR ASSURANCE OF COMPUTER PROGRAMS FOR STRATEGIC AND TACTICAL MISSILES, INTELLIGENCE PROCESSING SYSTEMS, GUN AND MISSILE RANGE INCLUDING LAND-BASED DEVELOPMENT SITES FOR WEAPON CONTROL SYSTEMS. ELECTROMAGNETIC EFFECTS FACILITIES FOR NUCLEAR AND NON-NUCLEAR EFFECTS. FACILITIES FOR WARHEAD CHARACTERIZATION AND DAMAGE TO TARGETS, DEVELOPMENT AND TEST FACILITIES FOR LASER AND ELECTRO-OPTICS SUBSYSTEMS, DEEP WATER OFFSHORE FACILITIES FOR MINE SYS, MOBILE TACTICAL WARGAMES FAC, EXPLOSIVES DEV FACILITIES, EXTENSIVE SCIENTIFIC COMPUTER FACILITY, FUZE, EXPLOSIVE MATERIALS AND MARINE CORPS SUPPORT FACILITIES.

INSTALLATION: UNDERSEA RANGES DEPARTMENT

NEWPORT, RI.

CO. CAPT J. W. AILES, IV

TECH DIR. MR. EARL MESSERE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	37.399	38.742
TOTAL PROCUREMENT	1.041	1.060
TOTAL O&M	12.964	14.200
TOTAL OTHER	2.231	2.209
TOTAL ANNUAL LAB	53.635	56.211
TOTAL INHOUSE	11.541	12.014
TOTAL INHOUSE RDT&E	9.499	9.716
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	25	0	18	7
CIVILIAN	24	2	13	11
TOTAL	49	2	31	18

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1042	83.442	12.718	847.714	443.874	27.226	19.433

...MISSION

TO PROVIDE DEEP WATER DEV AND OPRTNL T&E FACLTYS FOR U/W ACOUSTIC MEASUREMENTS, TESTING, AND CALBRN SONARS. PROVIDE ACCURATE U/W, SURFCE AND IN-AIR TRCKNG DATA ON SHIPS,SUBS,AIRCRAFT AND WEAPON SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

MK48 WEAPON SYSTEMS TRAINING CERTIFICATION PROGRAM

SHIP SILENCING PROGRAM

FLEET TRAINING/SUBROC,RANGEX,SHAREM

TORPEX/RANGEX

R&D TESTS/CAPTOR/MP SONAR/TOWED ARRAYS/LAMPS/BQQ 5/DICASS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HIGHLY ADVNCD AND INSTRMNTD ASW WEAPONS,SONAR,AND FORACS TEST MEASURMNT RANGES IN SUPPORT OF NAVY ASW AND UNDERSEA R&D PROGRAMS,AND ASW FLEET ASSESSMENT AND OPERATIONAL READINESS.

INSTALLATION: UNDERWATER SYSTEMS CENTER

NEWPORT, RI.

CO. CAPT J. W. AILES, IV

TECH DIR. MR. EARL MESSERE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	175.799	274.722
TOTAL PROCUREMENT	108.955	106.566
TOTAL O&M	134.845	137.463
TOTAL OTHER	20.494	20.070
TOTAL ANNUAL LAB	440.093	538.821
 TOTAL INHOUSE	 177.713	 222.441
TOTAL INHOUSE RDT&E	94.446	125.562
ANNUAL OPERATING COST	66.243	75.843

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	84	0	73	11
CIVILIAN	3002	83	1743	1259
TOTAL	3086	83	1816	1270

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
383	1101.377	232.885	571.430	1905.692	57.331	73.804

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CTR FOR SUBMARINE WARFARE AND SUBMARINE WEAPON SYSTEMS

...CURRENT IMPORTANT PROGRAMS

ADVNC'D TECHNGY IN U/W ACOUTCS, INFO PROCSNG, WEAPONRY.
 DESGN, DEV & EVAL U/W COMBAT SUB SYSMS INCDNG SUBACS & SURF SHIP SONAR.
 RDT&E FOR OVERALL U/W COMBAT (TRIDENT, 688, ETC.).
 INTRODUCE TO FLT AND IN-SERV ENGINEERING OF MK48 & DEV OF MK48 ADCAP.
 DESGN, DEV&EVAL OF LAUNCHERS, U/W TARGET SYS & MOBILE/FIXD U/W TEST RANGES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRIMARY IN-HSE R&D CAPABILITY FOR NAVY U/W COMBAT SYSTEMS SUBSYSTEMS AND TECHNICYS FOR SONAR SYSTEMS (HULL-TOWD/SUB COMCTNS SYSTEMS INTEGRTN/SUB ANINA SYSTEMS). U/W WPN RANGE TECHNLGY/REDINESS OF IN-SVC SHIPBOARD U/W SYSTEMS/ASW SUP. TORPEDO TEST RANGES (FIXD/PORTBLE) SHLOW AND DP WTR ASW WPN FIRE CTRL R&D FACILITY. ASW WPN LAUNCHING DEVICE R&D FACILITY, QLTY ENG, EVAL & RELIABILITY LAB. BERMUDA RSCH FACLT, TORPEDO PROPULSN TEST FACLT, ELECTMGNTC FACLT, SYS CRTFCTN AND INTGRTN FACLT, ACOUSTC MSMNT & XDUCER R&E FACLT, TORPDO TEST RANGE. INSTMNT SHETER, ACOUSTC RANGE AUTECH.

INSTALLATION: WEAPONS CENTER

CHINA LAKE, CA

CO. CAPT K. A. DICKERSON

TECH DIR. DR. B. W. HAYS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	280.809	317.069
TOTAL PROCUREMENT	133.476	126.693
TOTAL O&M	40.784	46.761
TOTAL OTHER	59.495	41.468
TOTAL ANNUAL LAB	514.564	531.991
TOTAL INHOUSE	251.590	326.684
TOTAL INHOUSE RDT&E	149.388	191.901
ANNUAL OPERATING COST	82.765	90.224

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	570	0	35	535
CIVILIAN	4152	101	1718	2434
TOTAL	4722	101	1753	2969

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
1127029	1800.708	229.521	3172.325	5202.554	238.920	117.512

...MISSION

THE PRINCIPAL NAVY RDT&E CENTER FOR AIR WARFARE SYSTEMS (EXCEPT ANTI-SUBMARINE WARFARE SYSTEMS) AND MISSILE WEAPON SYSTEMS, AND THE NATIONAL RANGE/FACILITY FOR PARACHUTE TEST AND EVALUATION.

...CURRENT IMPORTANT PROGRAMS

ANTI-AIR MSL: AIM-9L/M SIDEWINDER, AIM/RIM-7F/M SPARROW, OUT AIR BAT MSL
 ANTI-SURFACE MSLS: AGM/RGM-84 HARPOON, BGM-109 TOMAHAWK, AGM-123 SKIPPER
 ELECTRONIC W/F: AGM-88 HARM, ALR-67, SIMULATION FACILITIES, TACTICS EVAL
 TAC A/C SYS INTEGRATION A-7E, A-6E+, F/A-18, AH-1, A/C FIRE CONTROL SYS
 AIR/SURFACE-LAUNCHED WEAPONS AND WEAPONS COMPONENTS. AIRCREW ESCAPE SYS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT IN-HOUSE RESEARCH AND ESTABLISH AND MAINTAIN PRIMARY IN-HOUSE DEVELOPMENT, TEST, EVALUATION, AND IN-SERVICE ENGINEERING SUPPORT FOR SPECIFIC NAVY, MARINE CORPS AND JOINT SERVICE PRODUCTS SUCH AS ANTI-AIR MISSILES, ANTI-SURFACE WEAPONS, DEFENSE PENETRATION SYSTEMS, INTEGRATED TACTICAL AIRCRAFT SYSTEMS. FACILITIES INCLUDE MICHELSON LAB, ELECTRONIC WARFARE THREAT ENVIRONMENT SIMULATION, SOLID STATE DEVICE LAB, ENCOUNTER SIMULATION LAB, PROPULSION RESEARCH LAB, MICROELECTRONICS FACILITY, EXPLOSIVES R&D FACILITIES, GROUND AND AIRCRAFT RANGES, EXTERIOR AND TERMINAL BALLISTICS RANGES, ARMITAGE AIR FIELD, PARACHUTE TEST TOWERS, SUPERSONIC TEST TRACKS, MICROWAVE ANECHOIC FACILITIES, RADIO-FREQUENCY AND INFRARED/ELECTRO-OPTICAL HARDWARE-IN-THE-LOOP SIMULATIONS, AND LASER/ELECTRO-OPTICS LABS.

INSTALLATION: WEAPONS EVALUATION FACILITY

ALBUQUERQUE, N.M.

CO. CAPT R. C. KAUP

TECH DIR. MR. S. R. RANDALL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	3.888	4.938
TOTAL PROCUREMENT	2.259	2.129
TOTAL O&M	2.461	2.900
TOTAL OTHER	5.125	4.922
TOTAL ANNUAL LAB	13.733	14.889
 TOTAL INHOUSE	 11.351	 12.982
TOTAL INHOUSE RDT&E	3.303	4.211
ANNUAL OPERATING COST	1.702	1.770

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	131	0	26	105
CIVILIAN	124	0	51	73
TOTAL	255	0	77	178

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	23.000	34.000	95.000	152.000	9.600	1.677

...MISSION

CONDUCT THE NAVY NUCLEAR WEAPONS SYSTEM SAFETY PROGRAM. CONDUCT TEST AND EVALUATION PROJECTS ON NUCLEAR AND SELECTED NON-NUCLEAR WEAPONS. PERFORM NUCLEAR CERTIFICATION TRIALS INCLUDING NUCLEAR SURV.

...CURRENT IMPORTANT PROGRAMS

ONGOING NUCLEAR SAFETY PROGRAM ON ALL NAVY NUCLEAR WEAPON SYSTEMS, DEVELOPMENT SUPPORT FOR SUCH PROGRAMS AS F/A-18A, ASW STANDOFF WEAPON, VERTICAL LAUNCH ASROC, A NEW DEPTH BOMB, AND THE TRIDENT D5, MAINTENANCE OF OVER 800 LOADING MANUALS AND CHECKLISTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT NAVY NUCLEAR WEAPON SYSTEM SAFETY PROGRAM. CONDUCT CERTIFICATION AND COMPARIBILITY TRIALS ON AIR-LAUNCHED NUCLEAR WEAPON SYSTEMS. SUPPORT THE DESIGN, DEVELOPMENT, TEST, AND EVALUATION OF NEW NUCLEAR WEAPON SYSTEMS. SUPPORT NAVY NUCLEAR SURVIVABILITY PROGRAMS. DEVELOP, VERIFY AND MAINTAIN CONVENTIONAL AND NUCLEAR WEAPON LOADING MANUALS AND CHECKLISTS FOR ALL NAVY AIRCRAFT. SUPPORT NAVY HIGH ENERGY LASER PROGRAMS. FLIGHT TEST UTILIZING 4 A-7 AIRCRAFT, EXTENSIVE AIRCRAFT INSTRUMENTATION TELEMETRY AND DATA REDUCTION. IN-HOUSE COMPUTER FACILITIES AS WELL AS ACCESS EXTENSIVE KIRTLAND AFB COMPUTER RESOURCES. ACCESS TO WHITE SANDS MISSILE RANGE AND THE SANDIA AND LOS ALAMOS NATIONAL LABORATORIES.

INSTALLATION: AERO PROPULSION LABORATORY

WPAFB, OH.

DIR. COL JAMES D. JOHNSON

CH SCI. DR. EDWARD T. CURRAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	123.347	133.021
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.757	1.819
TOTAL ANNUAL LAB	125.104	134.840
TOTAL INHOUSE	39.232	42.627
TOTAL INHOUSE RDT&E	37.475	40.808
ANNUAL OPERATING COST	7.937	8.254

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	56	2	46	10
CIVILIAN	328	23	204	124
TOTAL	384	25	250	134

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
44	266.165	47.779	123.889	437.833	83.158	37.501

...MISSION

PLAN AND EXECUTE RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS IN AIRBREATHING PROPULSION, AEROSPACE POWER, FUELS AND LUBRICATION, AND AIRCRAFT FIRE PROTECTION TECHNOLOGY. CONDUCT CONTRACT AND IN-HOUSE PROGRAMS. PROVIDE OPERATIONAL AND SYSTEM SUPPORT.

...CURRENT IMPORTANT PROGRAMS

ADVANCED TURBINE ENGINE GAS GENERATOR TECHNOLOGY
JOINT ADVANCED FIGHTER ENGINE (JAFE) PROGRAM
RAMJET TECHNOLOGY FOR TACTICAL AND STRATEGIC MISSILES
POWER TECHNOLOGY FOR MILITARY SPACECRAFT
OPTIMIZATION OF AVAILABILITY AND COST OF AVIATION TURBINE FUELS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUEL AND NACELLE TANK SIMULATORS, FIRE RESEARCH LAB, FUEL ANALYSIS LAB, COMBUSTION FAC, LUBE TEST RIGS, BEARING TEST RIGS, FUEL HANDLING FACILITIES, HIGH SPEED DRIVE STAND, COMPRESSOR TEST FACILITIES, LASER HOLOGRAPHY LAB, ROTOR TEST FAC, 6 SEA LEVEL TEST STAND-1 CAPABLE OF 60,000 LBS THRUST, 1 TURBINE ENGINE ALTITUDE CELL, 2 PROPELLER WHIRL RIGS-1 CAPABLE OF 10,000 HP, DIRECT CONNECT RAMJET TEST FACILITY, RAMJET COMPONENTS LAB, AIRCRAFT ELECTRICAL POWER FAC WITH THREE-350 HP DRIVES SUPERCONDUCTIVITY LAB, HIGH POWER LAB TO 5 MW, THERMAL ENERGY STORAGE LAB, HYDRAULICS LAB, PLASMA PHYSICS LAB.

CDR. COL GEORGE C. MOHR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	32.138	25.136
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	5.996	1.257
TOTAL OTHER	3.747	1.100
TOTAL ANNUAL LAB	41.881	27.493
 TOTAL INHOUSE	 10.474	 9.797
TOTAL INHOUSE RDT&E	10.111	9.461
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	137	24	71	66
CIVILIAN	151	32	87	64
TOTAL	288	56	158	130

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
30	115.731	1.257	105.618	222.606	79.656	28.997

...MISSION

ACCOMPLISH BEHAVIORAL AND BIOMEDICAL RESEARCH AND DEVELOPMENT TO DEFINE HUMAN TOLERANCE AND DEGRADATION OF HUMAN PERFORMANCE UNDER THE CONDITION OF ENVIRONMENTAL STRESS ASSOCIATED WITH AEROSPACE OPERATIONS AND PROVIDE SUPPORT TO SYSTEM DEVELOPMENT UN THE ABOVE AREAS.

...CURRENT IMPORTANT PROGRAMS

OPERATOR COMMAND CONTROL AND COMMUNICATIONS TECHNOLOGY. CREW SYSTEMS AUTOMATION TECHNOLOGY. ADVANCED ESCAPE TECHNOLOGY. HUMAN COUNTER-MEASURES TECHNOLOGY. ENVIRONMENTAL HEALTH PROTECTION TECHNOLOGY. MAN-IN-SPACE ALTERNATIVES TECHNOLOGY. CHEMICAL DEFENSE TECHNOLOGY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HUMAN DECELERATION SYSTEM TO SIMULATE THE COMPLEX ACCELERATION ENVIRONMENT ASSOCIATED WITH EJECTION AND CRASH LANDING. DYNAMIC ENVIRONMENT SUMULATOR. A SIX DEGREE OF FREEDOM MAN-RATED CENTRIFUGE USED TO SIMULATE SUSTAINED ACCELERATIONS SUCH AS THOSE ENCOUNTERED IN AIR COMBAT MANEUVERING. THOMAS DOMES-EIGHT ALTITUDE EXPOSURE CHAMBERS TO SIMULATE EXOTIC ARTIFICIAL ATMOSPHERIC CONDITIONS. STRATEGIC AND TACTICAL COCKPIT SIMULATION FACILITIES USED TO PERFORM REAL-TIME MAN-IN-THE-LOOP EXPERIMENTS. ANECHOIC AND REVERBERATION CHAMBERS TO ENABLE EXPERIMENTAL INVESTIGATIONS OF POTENTIALLY HAZARDOUS NOISE TO DETERMINE EFFECTS ON BODY FUNCTION AND PERFORMANCE. VIVARIUM-LABORATORY RESEARCH ANIMAL FACILITY.

CDR. MG W. T. TWINTING

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	571.524	601.067
TOTAL PROCUREMENT	806.572	999.999
TOTAL O&M	15.756	16.998
TOTAL OTHER	129.459	129.270
TOTAL ANNUAL LAB	1,523.311	1,747.334
TOTAL INHOUSE	433.331	420.337
TOTAL INHOUSE RDT&E	296.204	285.565
ANNUAL OPERATING COST	39.841	41.006

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	4854	5	626	4228
CIVILIAN	2097	24	1027	1070
TOTAL	6951	29	1653	5298

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
456206	285.268	229.590	8445.858	8960.716	249.192	351.955

...MISSION

RESP FOR AIR-LAUNCH TACTCL & AIR DEF MSLS; NONNUC MUN, GUIDED WEAP, THRT SIMULATORS, AB DEF & RELATED EQUIP. RESP FOR BASIC TECH, DEV, TEST, INIT ACQ & DEPLOY. TEST MISSION INCLUDE LEAD CNTR IN MUN, ELECT CMBT, INTRUSION, INTERDICTION & CLIMATIC SIMULATION.

...CURRENT IMPORTANT PROGRAMS

ANTI-ARMOR/ANTI-MATERIAL MUNITIONS
PRECISION GUIDANCE MUNITIONS
ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE
RANGE SYSTEMS
RUNWAY CRATERING SUBMUNITIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SCIENTIFIC/ENGINEERING PERSONNEL & LAB FAC CAPABLE OF EXPLOR, ADV, & ENGINEERING DEV OF NONNUC MUN & EQUIP. ARMAMENT SYSTEMS TEST ENVIRONMENT COVERING 725 SQ MILES WITH LARGE ADJACENT WATER AREA; HAS 28 TEST AREAS WITH INSTRUMENTED FACILITIES INCLUDING PRECISION TRACKING RADARS & PHOTO-OPTICS, IS USED FOR MUN TESTING & ELECTROMAGNETIC TEST ENVIRONMENT; AN INSTRUMENTED COMPLEX OF THRT SYSTEMS FOR EVAL WPN SYS EFFECTIVENESS; PROVIDES A REALISTIC ENVIRONMENT FOR TESTING A WPN SYS AGAINST AN ACTIVE DEFENSE SYSTEM; A CLIMATIC LAB CAPABLE OF TESTING COMPLETE WPN SYS; A COMPUTER SCIENCE LAB, PHYSICAL SCIENCE LAB, PHOTO LAB, INSTRUMENTATION/R/D FACILITY, AND A MISSILE SIMULATION AND TEST LABORATORY.

INSTALLATION: ARMAMENT LABORATORY

EGLIN AFB FL

CDR. COL BOBBY J. RATLEDGE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	70.201	70.057
TOTAL PROCUREMENT	9.138	0.832
TOTAL O&M	0.305	0.517
TOTAL OTHER	0.098	0.025
TOTAL ANNUAL LAB	79.742	71.431
TOTAL INHOUSE	44.045	36.350
TOTAL INHOUSE RDT&E	35.861	34.976
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	175	2	166	9
CIVILIAN	322	16	233	89
TOTAL	497	18	399	98

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	49.766	0.000	145.079	194.845	7.468	0.000

...MISSION

AFATL IS SPECIFICALLY RESPONSIBLE FOR THE PLANNING, FORMULATION AND EXECUTION OF RESEARCH FOR EXPLORATORY AND ADVANCED DEVELOPMENT OF NON-NUCLEAR ARMAMENT AND RELATED EQUIPMENT, AS WELL AS TECHNICAL SUPPORT FOR ARMAMENT SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

AFX - 400 EXPLOSIVES
 INFRARED HIGH VALUE TARGET ACQUISITION
 WEAPONS AIRFRAME TECHNOLOGY
 ADVANCED SEEKER FOR AIR-TO-AIR MISSILES
 ADVANCED AIRCRAFT GUN AND AMMUNITION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT INVENTORY CONSISTS OF A VARIETY OF ANALYZERS, SIMULATORS, MIXER EQUIPMENT, AND MEASUREMENT MACHINES, SOME WITH RF, X-RAY AND LASER CHARACTERISTICS. AFATL FACILITIES INCLUDE 18 SEPARATE LABORATORIES FOR THE CONDUCT OF A WIDE RANGE OF SCIENTIFIC INVESTIGATIONS AND ANALYSES; A RAPID RESPONSE MODEL FABRICATION SHOP; AND A TECHNICAL LIBRARY WHICH HAS ON-LINE ACCESS TO SEVERAL DATA BANKS.

INSTALLATION: ARNOLD ENGINEERING DEVELOPMENT CENTER

TULLAHOMA, TN.

CDR. COL PHILLIP J. CONRAN

CH SCI. DR. JAMES G. MITCHELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	255.061	265.334
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.026	0.032
TOTAL OTHER	12.616	5.605
TOTAL ANNUAL LAB	267.703	270.971
TOTAL INHOUSE	79.846	67.195
TOTAL INHOUSE RDT&E	74.308	61.558
ANNUAL OPERATING COST	36.239	33.468

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	63	1	69	6
CIVILIAN	222	4	76	146
TOTAL	285	5	145	152

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
39081	817.378	306.938	969.034	2093.350	404.145	67.733

...MISSION

PRIMARY MISSION IS TO PROVIDE ENVIRONMENTAL TEST SUPPORT TO SYSTEMS DEVELOPMENT AND RESEARCH DEVELOPMENT PROGRAMS OF DOD AND TO KEEP EXISTING FACILITIES MODERN TO PROVIDE ADVANCED FACILITIES AS REQUIRED, AND TO CONTINUALLY DEVELOP ADVANCED TEST TECHNIQUES AND INSTRUMENTATION.

...CURRENT IMPORTANT PROGRAMS

PEACEKEEPER TESTING INCLUDES AERODYNAMIC AND ROCKET MOTOR FIRINGS
ANTI SATELLITE TEST SUPPORT INCLUDES SENSOR TESTING
F100 COMPONENT IMPROVEMENT PROG AND ENGINE MODEL DERIVATIVE PROG TEST
B-1B AND F101 ENGINE AND AERODYNAMIC TEST
INERTIAL UPPER STAGE ROCKET MOTOR FIRINGS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AEDC IS COMPRISED OF ABOUT 35 TEST UNITS. INCLUDED ARE WIND TUNNELS WITH TEST SECTIONS TO 16 FT SQ AND SPEED FROM SUBSONIC TO MACH 20; TURBINE ENGINE TEST CELLS WHICH PROVIDE SIMULATION TO MACH 3; ROCKET TEST CELLS, THE LARGEST RATED AT .5 MILLION LBS THRUST AT ALTITUDE; SPACE SIMULATION CHAMBERS TO 42 FT DIA AND 82 FT HIGH; HYPERBALLISTIC RANGES; DUST & SNOW EROSION FACILITY; BIRD IMPACT FACILITY; TWO CAPTIVE TRAJECTORY SYSTEMS. THESE FACILITIES HAVE SUPPORTED DEVELOPMENT AND QUALIFICATION OF MOST MAJOR AERONAUTICAL, MISSILE, AND SPACE SYSTEM DEVELOPMENT SINCE 1954. THIS TESTING COMPLEMENTS EXPENSIVE AND OFTEN HAZARDOUS FLIGHT TESTING AND ASSURES THAT SYSTEM DEFICIENCIES ARE FOUND EARLY, SAVING TIME AND RESOURCES IN THE OVERALL DEVELOPMENT, ACQUISITION AND DEPLOYMENT PROCESS.

INSTALLATION: AVIONICS LABORATORY

WPAFB, OH.

DIR. COL ERNEST F. MOORE

CH SCI. DR. JESSE C. RYLES

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	335.682	373.234
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	5.546	5.740
TOTAL ANNUAL LAB	341.228	378.974
TOTAL INHOUSE	45.162	50.594
TOTAL INHOUSE RDT&E	39.616	44.854
ANNUAL OPERATING COST	8.440	8.777

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	152	5	122	30
CIVILIAN	579	35	391	183
TOTAL	731	40	513	218

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
220	229.369	9.483	405.264	644.116	46.921	119.987

...MISSION

MAINTAINS AN AVIONICS TECH BASE THROUGH RESEARCH, EXPLORATORY AND ADV DEV AND ASSIGNED BASIC RESEARCH PROGRAMS. DEV AND DEMO COST-EFFECTIVE AVIONICS TO REDUCE ACQUISITION AND OPERATING COSTS AND IMPROVE OPERATIONAL CAPABILITIES, SUPPORTS OPERATIONAL COMMANDS AND PRODUCT DIVISIONS

...CURRENT IMPORTANT PROGRAMS

VERY HIGH SPEED INTEGRATED CIRCUITS TECHNOLOGY
SYNTHETIC APERTURE/BISTATIC RADAR
GALLIUM ARSENIDE POWER SOURCES FOR MICROWAVE APPLICATIONS
MONOPULSE RADAR COUNTERMEASURES
AUTOMATIC TARGET CLASSIFICATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNICAL AREAS OF RESPONSIBILITY INCLUDE - FIRE CONTROL, WEAPON DELIVERY, COMMUNICATIONS, ELECTRONIC WARFARE, NAVIGATION, SURVEILLANCE, RECONNAISSANCE, INFORMATION PROCESSING AND CONTROL, SUBSYSTEMS, INTEGRATION AND SYSTEMS ARCHITECTURE, SUPPORTING ELECTRONIC DEVICES. IN-HOUSE FACILITIES INCLUDE - SIMULATION AND ANALYSIS OF INTEGRATED DIGITAL SYSTEMS, DESIGN AND FABRICATION OF SPECIALIZED INTEGRATED/HYBRID CIRCUITS AND PRINTED WIRING BOARDS, PERFORMANCE EVALUATION OF E-O SYSTEMS AND CORRELATION WITH WEATHER OBSERVATION, SIMULATION OF REAL-WORLD SIGNAL/JAMMING ENVIRONMENT FOR EVALUATION OF ELECTRONIC WARFARE SYSTEMS, EVALUATION OF RECON SENSORS IN REALISTIC FLIGHT ENVIRONMENT. OTHER LABS ARE MAINTAINED FOR EVALUATION OF AIRBORNE AND SPACE SENSORS AND COMPONENTS FROM OPTICAL TO RADIO FREQUENCIES.

CDR. COL NATHAN J. LINDSAY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	0.000	0.000
TOTAL PROCUREMENT	9.549	12.488
TOTAL O&M	347.565	340.394
TOTAL OTHER	88.414	114.425
TOTAL ANNUAL LAB	445.528	467.307
TOTAL INHOUSE	199.933	231.076
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	69.918	52.418

PERSONNEL	PERSONNEL DATA (END OF FY 1984)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	2839	0	129		2710
CIVILIAN	1218	1	106		1112
TOTAL	4057	1	235		3822

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
26177	177.723	1189.018	6576.341	7943.082	413.911	0.000

...MISSION

SUPPORT OF AIR, GROUND AND SEA LAUNCHED SPACE AND MISSILE SYSTEMS FROM CCAFS AND KSC. OPERATION OF INSTRUMENTED SHIP IN SUPPORT OF REQUIREMENTS. SUPPORT OF USAF SPACETRACK. SUPPORT OF SPECIAL PROJECTS, DOCUMENTED R&D TESTS AND VARIOUS ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

NAVY PROGRAMS-POSEIDON, TRIDENT, CHEVALINE
MILITARY SPACE SUPPORT PROGRAMS-TITAN 34D/IUS
MILITARY MISSION SUPPORT PROGRAMS-SRAM AND PERSHING
NASA PROGRAMS-DELTA, ATLAS/CENTAUR, AND SPACE SHUTTLE
DOD SPACE TRANSPORTATION SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ESMC CAPABILITIES INCLUDE: ASSEMBLY, PRELAUNCH CHECKOUT AND LAUNCH PERFORMANCE EVALUATION OF BALLISTIC MISSILES, SPACE LAUNCH VEHICLES AND PAYLOADS. SERVICES INCLUDE: TRACKING, LONG DISTANCE COMMUNICATIONS, AND DATA REDUCTION AND ANALYSIS. EQUIPMENT AND FACILITIES INCLUDE: CCAFS LAUNCH SUPPORT, MAINLAND AND DOWN RANGE INSTRUMENTATION AND COMMUNICATION, INSTRUMENTED SHIP, DATA PROCESSING, PHOTO/ELECTRO-OPTICAL SERVICE, MISSILE IMPACT LOCATION SYSTEMS, METEOROLOGICAL SERVICES AND RANGE TIMING SYSTEMS. ESMC OPERATES AND MAINTAINS CCAFS, MAINLAND SITES AND DOWN RANGE STATIONS. SUPPORT FUNCTIONS INCLUDE: CONTRACTOR OPERATION, PLANT ENGINEERING. LABS, SHOPS, AND OTHER SPECIAL SERVICES.

DIR. COL ROBERT BOYER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	19.271	32.068
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.426	0.328
TOTAL OTHER	2.482	2.730
TOTAL ANNUAL LAB	22.179	35.126
TOTAL INHOUSE	5.184	4.660
TOTAL INHOUSE RDT&E	2.304	1.602
ANNUAL OPERATING COST	0.184	0.202

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	74	7	40	34
CIVILIAN	83	8	22	11
TOTAL	107	10	62	45

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
8	12.000	14.000	0.000	26.000	1.960	2.921

...MISSION

AIR FORCE LEAD AGENCY FOR RESEARCH, DEVELOPMENT, TEST AND EVALUATION IN THE AREAS OF CIVIL ENGINEERING AND ENVIRONMENTAL QUALITY. AF FOCAL POINT FOR ENVIRONMENTAL QUALITY AND LEAD LABORATORY FOR FACILITIES ENERGY.

...CURRENT IMPORTANT PROGRAMS

RAPID RUNWAY REPAIR AND NEW AIRCRAFT OPERATIONAL SURFACES
ENVIRONMENTAL QUALITY AND ASSESSMENT RESEARCH AND DEVELOPMENT
SURVIVABILITY/VULNERABILITY OF FACILITIES
FACILITIES ENERGY AND ALTERNATE ENERGY SOURCES
FIRE PROTECTION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ESL HAS ACCESS TO LABORATORIES AND TEST FACILITIES TO PERFORM QUALITATIVE AND QUANTITATIVE MEASUREMENTS ON ENGINEERING MATERIALS, PAVEMENTS, SOIL MECHANICS, AIR QUALITY, WASTE TREATMENT PROCESSES, FIRE EXTINGUISHING AGENTS, AND HARDENED AIRCRAFT SHELTERS. EQUIPMENT INCLUDES FLAME AND ABSORPTION SPECTROPHOTOMETERS, WATER/WASTE STANDARD METHODS TEST EQUIPMENT, ELECTRICAL AEROSOL ANALYZING EQUIPMENT, LASER PARTICLE SIZE MEASUREMENT EQUIPMENT, AND MICROPROCESSOR DEVELOPMENT SYSTEMS. REMOTE TERMINAL ACCESS IS AVAILABLE TO CYBER 171 AND 176 SCIENTIFIC COMPUTERS WITH OFF LINE PLOTTING CAPABILITY. A RUNWAY REPAIR /ALTERNATE LAUNCH SURFACE TEST SITE HAS A 200 X 600 FOOT TYPICAL RUNWAY SECTION.

INSTALLATION: FLIGHT DYNAMICS LABORATORY

WPAFB, OH.

DIR. COL LARRY G. VAN PELT

CH SCI. DR. G. KEITH RICHEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	130.113	145.578
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	6.263	6.482
TOTAL ANNUAL LAB	136.376	152.060
TOTAL INHOUSE	54.532	59.627
TOTAL INHOUSE RDT&E	48.269	53.145
ANNUAL OPERATING COST	8.048	8.370

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	173	2	153	20
CIVILIAN	628	33	426	202
TOTAL	801	35	579	222

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
76	546.654	5.100	168.182	719.936	50.676	44.630

...MISSION

PLAN AND EXECUTE RESEARCH, EXPLORATORY AND ADV DEV PROGRAMS FOR AERO-SPACE FLT VEHICLE STRUCTURES, AERODYNAMICS, FLT CONTROL, DYNAMICS AND VEHICLE EQUIPMENT. LEAD AFSC LAB FOR EXPERIMENTAL FLT VEHICLES.FOCAL POINT FOR NON-NUCLEAR SURVIVABILITY PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

ADVANCED FIGHTER TECHNOLOGY INTEGRATION
ADVANCED COMPOSITE AND METALLIC STRUCTURES
SHORT TAKEOFF/LANDING AND MANEUVER TECHNOLOGY
FORWARD SWEEP WING TECHNOLOGY DEMONSTRATOR
INTEGRATED FLIGHT MANAGEMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BATTLE DAMAGED WINDSHIELDS AND CANOPIES WERE REPAIRED AND SUCCESSFULLY TESTED IN A COMBINED THERMAL/PRESSURE FLIGHT SIMULATION IN THE CONVECTION HEATING LAB OF THE STRUCTURES TEST FACILITY. AN EXHAUSTIVE TERRAIN FOLLOWING/TERRAIN AVOIDANCE GROUND-BASED PILOT-IN-THE-LOOP SIMULATION WAS ACCOMPLISHED IN THE FLIGHT CONTROL DEVELOPMENT FACILITY. THE EXISTENCE OF LASER-INDUCED TRANSIENTS ON CONDUCTING SURFACES WAS INVESTIGATED AND CHARACTERIZED IN TESTS IN THE ATMOSPHERIC ELECTRICITY HAZARDS SIMULATION FACILITY. THE MACH 6 WIND TUNNEL WAS MODIFIED TO EXTEND ITS RANGE OF TESTING FROM A HIGH TO A LOW REYNOLDS NUMBER FACILITY CAPABLE OF SIMULATING HIGH ALTITUDE FLIGHT AT LOWER HYPERSONIC SPEEDS. GROUND INDUCED LOADS ON AIRCRAFT OPERATING FROM BOMB DAMAGED/REPAIRED RUNWAYS WERE SUCCESSFULLY SHOWN IN THE STRUCTURES TEST FACILITY.

INSTALLATION: FLIGHT TEST CENTER

EDWARDS AFB, CA.

CDR. MG P. W. ODGERS

TECH DIR. MR. C. E. ADOLPH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	181.342	186.809
TOTAL PROCUREMENT	1.668	3.121
TOTAL O&M	26.344	24.703
TOTAL OTHER	94.052	100.735
TOTAL ANNUAL LAB	303.406	315.368
TOTAL INHOUSE	215.102	213.949
TOTAL INHOUSE RDT&E	123.907	118.117
ANNUAL OPERATING COST	30.887	31.324

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	3671	2	201	3470
CIVILIAN	2155	15	322	1833
TOTAL	5826	17	523	5303

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
299084	184.691	261.070	7492.874	7938.635	304.555	158.863

...MISSION

TOTAL SYSTEMS DT&E OF MANNED AND UNMANNED AEROSPACE VEHICLES. T&E OF RESEARCH VEHICLES AND AERODYNAMIC DECELERATORS. OPERATE USAF TEST PILOT SCHOOL, EDWARDS FLT TEST RANGE AND UTAH TEST AND TRAINING RANGE. SUPPORT OT&E. SPT USAF DOD, GOVT, CONTRACTOR AND FOREIGN T&E.

...CURRENT IMPORTANT PROGRAMS

B-1B DT&E/OT&E

FIGHTER UPGRADE: F-16 MSIP, F-15, LANTIRN, F-15E

B-52 STRATEGIC SYSTEMS UPGRADE

T-46

TECHNOLOGY: AFTI F-16, X-29

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQP, FACILITIES AND PERSONNEL CAPABILITIES ARE AVAILABLE TO CONDUCT TOTAL WEAPON SYSTEMS DT&E/OT&E OF AERONAUTICAL SYSTEMS. TECH FACILITIES/CAPABILITIES INCLUDE AERODYNAMIC ENGINEERING AND AVIONICS (IFAST) SIMULATORS; A REAL TIME MISSION CONTROL CENTER; MICROWAVE RANGE FROM HILL AFB TO VANDENBERG AFB; PRECISION IMPACT BOMB/GUNNERY/INFRARED/PHOTO RESOLUTION/RADAR FIDELITY AND CARGO/PERSONNEL AIRDROP RANGES; RADAR/CINE-T SPACE POSITIONING; DATA COLLECTION, REDUCTION & ANALYSIS; REAL-TIME FLUTTER AND LOADS; PHOTO/TV LAB; & COMPLETE AIRCRAFT INSTRUMENTATION FACILITIES; AIRCRAFT/ENGINE/AVIONICS SHOPS; MUNITIONS STORAGE AND CHECKOUT, CRUISE MISSILE INTEGRATED MAINTENANCE FACILITY; 19 MAJOR HANGAR/ENGINEERING SUPPORT FACILITIES; 15,000 FT RUNWAY; SEVERAL MILES OF DRY LAKE RUNWAYS.

CDR. LTCOL K. E. SIEGENTHALER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	2.022	1.377
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.289	1.340
TOTAL ANNUAL LAB	3.311	2.717
 TOTAL INHOUSE	 3.311	 2.717
TOTAL INHOUSE RDT&E	2.022	1.377
ANNUAL OPERATING COST	0.131	0.136

PERSONNEL	PERSONNEL DATA (END OF FY 1984)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	23	10	20		3
CIVILIAN	9	1	6		3
TOTAL	32	11	26		6

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	190.000	3.000	0.000	193.000	1.820	2.628

...MISSION

CONDUCT RESEARCH IN LASERS, AEROMECHANICS, AND CHEMISTRY. ENCOURAGE AND SUPPORT ACADEMY FACULTY & CADET RESEARCH BY DIRECT PARTICIPATION. SPONSOR FACULTY RESEARCH PROGRAMS. FOCAL POINT FOR USAF ACADEMY RESEARCH PROPOSED TO DL RESEARCH & TECHNOLOGY LABS (AFSC).

...CURRENT IMPORTANT PROGRAMS

BATTERY RESEARCH & ELECTROCHEMISTRY OF MOLTEN SALTS, ENERGETIC MATERIALS RESEARCH, THEORETICAL CALCULATIONS, LASER RESEARCH, LASER DAMAGE STUDIES, OPTICAL ROTATION SENSORS, OPTICS RESEARCH, PERIODIC CONTROL, NUCLEAR GYROS, IMAGE PROCESSING
UNSTEADY AERODYNAMICS, INTERGATED AIR REATHING PROPULSION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MOLTEN SALT MELT STRUCTURE, CONDUCTIVITY&ELECTRODE REACTIONS. EXPLOSIVE& PROPELLANT SYNTH. DECOMPOSITION MECHANISMS&DETONATION PHENOMENA. GENERATION, MSMT, SPECTROSCOPY&MO CALC. OF EXCITED STATE SPECIES. FTIR, UV, FTNMR, EPR, X-RAY&MASS SPEC. GAS & LIQUID CHROMATOGRAPH, ELECTRON MICROSCOPE, SPECIAL SPECTROMETERS & CONDUCTIVITY EQUIP. ASSOC. FACILITIES FOR WET CHEMISTRY. ADVANCED ANALYSIS&EVALUATION TECHNIQUES FOR INERTIAL GUIDANCE SENSORS USING 2-AXIS TEST TABLE (GYRO), AUTOMATIC AZIMUTH ALIGNMENT EQUIPMENT&ELECTRONIC CONTROL EQUIP FOR 50 SERIES INERTIAL DEVICES LOCATED IN A CLASS 1000 CLEAN LAB ON 80 TON AIR SUPPORTED STABLE PLATFORM. VAX 11/780 MINICOMPUTER&SOFTWARE TO AUTOMATE GYRO RESEARCH. EXCIMER, DYE LASERS. AERO RESEARCH IN USAFA SUBSONIC&TRISONIC WIND TUNNELS. HOLOGRAPHIC&OTHER OPTICAL FLOW VISUALIZATION INSTRUMENTATION.

INSTALLATION: GEOPHYSICS LABORATORY

HANSCOM AFB, MA.

CDR. COL JOSEPH D. MORGAN, III

CH SCI. DR. ALVA T. STAIR, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	79.227	107.145
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	6.699	5.904
TOTAL ANNUAL LAB	85.926	113.049
TOTAL INHOUSE	34.799	41.126
TOTAL INHOUSE RDT&E	31.700	38.035
ANNUAL OPERATING COST	18.115	19.021

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	126	4	49	77
CIVILIAN	476	98	284	192
TOTAL	602	102	333	269

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
336	393.389	14.821	25.883	434.093	9.871	39.154

...MISSION

CONDUCTS AND SUPPORTS AF RELEVANT RESEARCH AND EXPLORATORY DEVELOPMENT IN ENVIRONMENTAL AND PHYSICAL SCIENCES WITH MAJOR EMPHASIS ON GEOPHYSICS. ALSO CONDUCTS AND SUPPORTS SPECIFICALLY ASSIGNED ADVANCED DEVELOPMENT EFFORTS.

...CURRENT IMPORTANT PROGRAMS

SPACE ENVIRONMENT
WEATHER FORECAST AND OBSERVING AUTOMATION
IONOSPHERIC SPECIFICATION FOR C3I SYSTEMS
OPTICAL, INFRARED AND UV BACKGROUNDS FOR SURVEILLANCE SYSTEMS
GEODETIC AND EARTH MOTION EFFECTS ON MISSILE CEP

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCTS RESEARCH AND TECHNICAL DEVELOPMENT IN TERRESTRIAL AND ATMOSPHERIC SCIENCES, AND IONOSPHERIC, OPTICAL, SPACE AND SOLAR PHYSICS RELATING TO AIR FORCE NEEDS. EQUIPMENT AND FACILITIES INCLUDE IN-HOUSE LABORATORIES; SPACE SIMULATION CHAMBERS; ROCKET AND BALLOON LAUNCH FACILITIES; AND TWO KC-135 AIRCRAFT FOR OPTICAL, UPPER ATMOSPHERIC AND IONOSPHERIC STUDIES.

INSTALLATION: HUMAN RESOURCES LABORATORY

BROOKS AFB, TX.

CDR. COL ANTHONY F. BRONZO, JR

CHI SCI. DR. EARL A. ALLUISTI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	54.501	54.402
TOTAL PROCUREMENT	0.802	0.000
TOTAL O&M	2.732	1.528
TOTAL OTHER	3.696	5.000
TOTAL ANNUAL LAB	61.731	60.930
TOTAL INHOUSE	15.783	17.533
TOTAL INHOUSE RDT&E	12.088	12.533
ANNUAL OPERATING COST	2.700	3.020

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	176	8	85	91
CIVILIAN	236	44	130	106
TOTAL	412	52	215	197

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	81.180	65.319	62.879	209.378	6.851	109.764

...MISSION

PLAN AND EXECUTE RESEARCH, EXPLORATORY DEVELOPMENT, AND ADVANCED DEVELOPMENT PROGRAMS IN TRAINING AND PERSONNEL SYSTEMS TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

MANPOWER AND PERSONNEL PROGRAMS IN SELECTION, CLASSIFICATION AND RETENTION; EDUCATION AND TRAINING PROGRAMS IN TECHNICAL TRAINING, FLYING TRAINING AND CREW AND TEAM TRAINING; SIMULATION AND TRAINING DEVICES PROGRAMS DEVELOPING FLIGHT AND MAINTENANCE TRAINING SIMULATORS; LOGISTICS PROGRAMS IN COMBAT MAINTENANCE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE ADVANCED SIMULATOR FOR PILOT TRAINING CONSISTING OF TWO COCKPITS ON A SIX DEGREES OF FREEDOM MOTION BASE WITH WIDE-ANGLE INFINITY VISUAL DISPLAYS AND A COMPUTER IMAGE GENERATION SYSTEM. THE ADVANCED INSTRUCTIONAL SYSTEM COMPUTER BASED TRAINING SYSTEM OFFERING INDIVIDUALIZED, ADAPTIVE TRAINING TO MAXIMIZE INDIVIDUAL LEARNING PERFORMANCE. THE UNIVAC 1100/81 COMPUTER SYSTEM USED FOR R&D IN ALL FACETS OF PERSONNEL SELECTION, TRAINING, MANAGEMENT AND RETENTION. THE BASIC RESEARCH TRAINING AND TESTING LABORATORY IS USED FOR EXPLORING NEW TECHNIQUES IN THE MEASUREMENT OF INDIVIDUAL DIFFERENCES IN LEARNING AND PERFORMANCE CAPABILITIES.

INSTALLATION: MATERIALS LABORATORY

WPAFB, OH.

DIR. MR. GEORGE P. PETERSON

CH SCI. DR. HARRIS M. BURTE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	132.108	137.037
TOTAL PROCUREMENT	8.050	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.795	1.858
TOTAL ANNUAL LAB	141.953	138.895
TOTAL INHOUSE	26.123	31.168
TOTAL INHOUSE RDT&E	24.328	29.310
ANNUAL OPERATING COST	3.935	4.092

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	51	3	45	6
CIVILIAN	296	55	232	64
TOTAL	347	58	277	70

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	188.750	117.941	54.123	360.814	23.340	66.488

...MISSION

PLAN/EXECUTE EXPLORATORY AND ADVANCED DEVELOPMENT, AND ASSIGN BASIC RESEARCH PROGRAMS FOR MATERIALS, PROVIDE TECHNICAL AND MANAGEMENT ASSISTANCE FOR STUDIES, ANALYSIS, DEV PLANNING, TEST, EVAL, MOD AND OPERATION OF AEROSPACE SYS. MANAGE AF DIRECTED MANUFACTURING PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

ADVANCED DEVELOPMENT OF LASER-HARDENED MATERIALS
STRUCTURAL MATERIALS FOR AEROSPACE SYSTEMS
THERMAL PROTECTION MATERIALS
PROPULSION MATERIALS
ELECTRONIC MATERIALS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MATERIALS RESEARCH AND DEVELOPMENT FACILITIES AND CAPABILITIES FOR AEROSPACE STRUCTURES, THERMAL PROTECTION SYSTEMS FOR BALLISTIC REENTRY VEHICLES AND ENGINES, FLUIDS, LUBRICANTS, FLUID CONTAINMENT, PROPULSION COATINGS, FIBERS, ELECTROMAGNETIC WINDOWS, SENSORS, LASER WINDOWS AND OPTICAL DEVICES, ELECTRICAL COMPONENTS, NON-DESTRUCTIVE TESTING, POLYMERS, ADHESIVES, NON-METALLIC MATRIX COMPONENTS, ELASTOMERS, METALS, ALLOYS, METAL MATRIX COMPOSITES, METAL PROCESSING, CERAMICS, STATIC AND DYNAMIC BEHAVIOR, GRAPHITE, ELECTRONIC/PHYSICAL/CHEMICAL ANALYSIS, OTHER MAJOR MATERIAL FUNCTIONS WHICH INCLUDE MANUFACTURING TECHNOLOGY, SYSTEMS APPLICATIONS, SYSTEMS SUPPORT AND THERMAL PROTECTION MATERIALS.

INSTALLATION: OFFICE OF SCIENTIFIC RESEARCH

WASHINGTON, D.C.

CDR. COL GERALD P. D'ARCY

TECH DIR. DR. JOHN O. DIMMOCK

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	141.987	150.693
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.055	0.052
TOTAL OTHER	1.695	1.763
TOTAL ANNUAL LAB	143.737	152.508
TOTAL INHOUSE	1.695	1.763
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	4.464	5.802

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PIIDS	TOTAL PROF	NON- PROF
MILITARY	44	16	21	23
CIVILIAN	97	22	25	72
TOTAL	141	38	46	95

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	36.688	5.128	41.816	0.000	0.000

...MISSION

MANAGES THE AF RESEARCH PROGRAM, PREVENTS TECHNOLOGICAL SURPRISE,
ASSISTS IN SOLVING TECHNOLOGICAL PROBLEMS, PROVIDES RESEARCH OPTIONS,
ENHANCES THE CONTINUED SUPERIORITY OF THE AF OPERATIONAL CAPABILITY, AND
ASSISTS IN THE TRANSITION OF RESEARCH TO DEVELOPMENT PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

SPACE SURVEILLANCE BACKGROUNDS
REGULATION OF BIOREACTIVITY
FAST ALGORITHMS
TURBINE ENGINE HOT SECTIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANAGE THE AF RESEARCH PROGRAM AND SPONSOR EXTRAMURAL RESEARCH.

INSTALLATION: ROCKET PROPULSION LABORATORY

EDWARDS AFB, CA.

CDR. COL JERRY MASON

DIR. MR. DON HART

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	44.724	54.952
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.055	0.166
TOTAL OTHER	4.556	4.309
TOTAL ANNUAL LAB	49.335	59.427
TOTAL INHOUSE	18.748	19.394
TOTAL INHOUSE RDT&E	14.433	15.069
ANNUAL OPERATING COST	0.960	0.994

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	175	1	66	109
CIVILIAN	249	17	107	142
TOTAL	424	18	173	251

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
68345	419.046	86.848	4.780	510.674	126.300	27.425

...MISSION

CONDUCT THE AIR FORCE'S ROCKET PROPULSION AND INTERDISCIPLINARY SPACE TECHNOLOGY RESEARCH, EXPLORATORY, AND ADV DEVEL PROGRAMS FOR FUTURE ICBMS, AIR LAUNCHED MISSILES, SPACE VEHICLES, AND SATELLITES. PROVIDES ROCKET PROPULSION TECHNOLOGICAL SUPPORT TO DOD AND NON-DOD AGENCIES.

...CURRENT IMPORTANT PROGRAMS

PROVIDE PROPULSION OPTIONS FOR SMALL MOBILE BALLISTIC MISSILES.
 PROVIDE HIGH PERFORMANCE & PROPULSION FLEXIBILITY OPTIONS FOR TACTICAL MISSILES. PROVIDE LOW AIR LAUNCHED MISSILE PROPULSION SIGNATURE.
 PROVIDE PROPULSION OPTIONS FOR SPACE SYSTEMS DEPLOYMENT.
 DEMONSTRATE HIGHER PERFORMANCE NON-CONVENTIONAL PROPULSION CONCEPTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LABORATORIES FOR SYNTHESIS, ANALYSIS AND FORMULATION OF NEW PROPELLANTS.
 FACILITIES FOR MIXING, CASTING, CURING AND TESTING SOLID ROCKET MOTORS.
 SOLID MOTOR EXPERIMENTAL COMPLEX FOR INVESTIGATION OF COMBUSTION, AGING, STRUCTURAL INTEGRITY, BALLISTIC PERFORMANCE AND HIGH TEMP COMPONENTS.
 LAB FOR EXPERIMENTATION OF SMALL ATTITUDE CONTROL AND SATELLITE PROPULSION SYSTEMS AND COMPONENTS UNDER SIMULATED SPACE ENVIRONMENTS.
 ALTITUDE EXPERIMENTATION OF LIQUID AND SOLID ROCKETS UP TO 50,000 POUNDS THRUST. AMBIENT EXPERIMENTATION OF LIQUID OR SOLID ROCKETS UP TO 10,000,000 POUNDS THRUST. IN-HOUSE ANALYTICAL CAPABILITY FOR DESIGN, ANALYSIS, AND DATA REDUCTION. SHOPS FOR FABRICATING EXPERIMENTAL HARDWARE AND SYSTEMS.

INSTALLATION: ROME AIR DEVELOPMENT CENTER

GRIFFISS AFB, N.Y.

CDR. COL CARL G. O'BERRY

CH SCI. DR. FRED I. DIAMOND

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	259.466	334.456
TOTAL PROCUREMENT	22.766	21.703
TOTAL O&M	55.015	67.379
TOTAL OTHER	7.126	8.472
TOTAL ANNUAL LAB	344.373	432.010
TOTAL INHOUSE	41.015	53.654
TOTAL INHOUSE RDT&E	35.028	45.152
ANNUAL OPERATING COST	16.396	17.112

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	220	3	122	98
CIVILIAN	1088	64	600	488
TOTAL	1308	67	722	586

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1517	764.945	52.839	182.271	1000.055	29.595	56.243

...MISSION

CONDUCTS RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT, TEST AND SELECTED ENGINEERING DEVELOPMENT AND ACQUISITION SUPPORT PROGRAMS IN SUPPORT OF COMMAND, CONTROL AND COMMUNICATIONS AND INTELLIGENCE ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

ADVANCED TACTICAL RADAR
SPACE BASED RADAR
COMMAND, CONTROL AND COMMUNICATIONS DECISION AIDS
SATELLITE COMMUNICATIONS
FIBER OPTICS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR AREAS OF TECHNOLOGY ARE ANTENNAS, SIGNAL PROCESSING, SOLID STATE COMPONENTS, THERMIONICS, OPTO-ELECTRONICS, RADIATION HARDENING, SYSTEM AND COMPONENT RELIABILITY, SOFTWARE, ARTIFICIAL INTELLIGENCE WITH EMPHASIS ON DECISION AIDS, & RECONNAISSANCE & INTELLIGENCE DATA HANDLING. MAJOR IN-HOUSE FACILITIES ARE RECONNAISSANCE EXPLOITATION FACILITY, HIGH POWER FACILITY, DIGITAL COMMUNICATIONS EXPERIMENTAL FACILITY, R&D COMPUTER FACILITY FEATURING 2 HONEYWELL 6180 COMPUTERS WITH MULTICS, RELIABILITY ANALYSIS CENTER, RADIATION EFFECTS FACILITY, EXPERIMENTAL PHOTOGAMMETRIC FACILITY, ECCM AND SIGNAL PROCESSING LABORATORY, SOLID STATE DEVICE FAILURE ANALYSIS FACILITY, EXPERIMENTAL DEVICE FABRICATION FACILITY, ELECTROMAGNETIC VULNERABILITY FACILITY FOR WEAPONS TESTING, SURVEILLANCE LABORATORY, AND MATERIALS SYNTHESIS AND DEVELOPMENT FACILITY.

INSTALLATION: SCHOOL OF AEROSPACE MEDICINE

BROOKS AFB, TX.

CDR. COL ROYCE MOSER, JR.

VCDR. COL JEFFREY G. DAVIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	24.142	25.514
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.654	0.680
TOTAL ANNUAL LAB	24.796	26.194
TOTAL INHOUSE	14.979	15.030
TOTAL INHOUSE RDT&E	14.325	14.350
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	358	44	70	288
CIVILIAN	271	41	102	169
TOTAL	629	85	172	457

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1309	483.578	59.078	193.122	685.778	53.153	26.898

...MISSION

CONDUCT EXPLORATORY RESEARCH AND DEVELOPMENT PROGRAMS IN AEROSPACE BIOTECHNOLOGY, INCLUDES LIFE SUPPORT, AEROSPACE MEDICINE, BIOMEDICAL PROGRAMS AND RADIOBIOLOGY. PROVIDE MEDICAL EVALUATION AND CONSULTATION FOR AIRCREWS TO ASSURE RETENTION OF FLYING STATUS.

...CURRENT IMPORTANT PROGRAMS

CHEMICAL WARFARE DEFENSE.
RADIATION AND DIRECTED ENERGY BIOEFFECTS.
CREW READINESS AND PROTECTIVE EQUIPMENT.
AEROMEDICAL ASPECTS OF AEROSPACE OPERATIONS.
SPACE BIOTECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH IN AEROSPACE MEDICAL PROBLEMS, LIFE SUPPORT, ENVIRONMENTAL STRESS, RADIOBIOLOGY, LASER, BIOMETRICS, BIOMED ENGINEERING, RDTE ON MEDICAL EQUIPMENT AND SYSTEMS, WHOLE BODY COUNTER, HUMAN CENTRIFUGE, TESTING CELLS, RESEARCH CHAMBERS, TELETHERAPY COBALT 60 RADIATION SOURCE, RADIOFREQUENCY RADIATION FACILITY, ELECTRON MICROSCOPE SYSTEM, REMOTE INTERACTIVE GRAPHIC TERMINAL SYSTEM, THERMAL CHAMBER, CARDIAC CATH LAB, AEROSP MED SCIENCE LAB, LASER HAZARD FACILITIES, AEROMEDICAL LIBRARY, AEROSP MED EVALUATION AND CONSULTATIVE SERVICES, OPTICAL RESEARCH, AUDIOLOGY, VESTIBULAR STUDIES, PSYCHOBIOLOGY, RADIOISOTOPE, AEROMED STANDARDS, MODELING, BIOMED RESEARCH, MEDICAL REPOSITORIES, RADIATION SCIENCES RESEARCH, BIODYNAMICS RESEARCH, DEVELOP ENGINEERING.

INSTALLATION: WEAPONS LABORATORY

KIRTLAND AFB, N.M.

CDR. COL J. M. WALTON

VCDR. COL J. H. HAVEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	255.999	285.527
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	17.933	18.830
TOTAL ANNUAL LAB	273.932	304.357
TOTAL INHOUSE	107.532	118.357
TOTAL INHOUSE RDT&E	89.599	99.527
ANNUAL OPERATING COST	16.235	16.588

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	618	30	427	191
CIVILIAN	514	52	204	310
TOTAL	1132	82	631	501

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
702	705.130	130.000	132.000	967.130	75.595	82.950

...MISSION

RESPONSIBLE FOR EXPLORATORY, ADVANCED, AND ENGINEERING DEVELOPMENT IN NUCLEAR WEAPONS EFFECTS, COMPONENTS, NUCLEAR SURVIVABILITY/VULNERABILITY, HIGH ENERGY LASER SYSTEMS, ADVANCED WEAPON CONCEPTS AND TECHNOLOGY, AND NUCLEAR SAFETY.

...CURRENT IMPORTANT PROGRAMS

ADVANCED RADIATION TECHNOLOGY
ADVANCED WEAPON TECHNOLOGY
NUCLEAR SURVIVABILITY/VULNERABILITY ANALYSIS AND TESTING
NUCLEAR SAFETY ANALYSIS AND DESIGN CRITERIA
STRATEGIC DEFENSE INITIATIVES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NUCLEAR WEAPONS EFFECTS SIMULATION, SAFETY, COMPONENT ASSESSMENT AND ANALYSIS OF WEAPONS SYSTEMS NUCLEAR HARDNESS ARE CONDUCTED IN ENGINEERING TEST LABORATORIES AND PHYSICS LABORATORIES. SIMULATION TESTS ON MISSILES, AIRCRAFT, AND COMPONENTS USE ELECTROMAGNETIC PULSE SIMULATORS, GAS GUNS, AND X-RAY DEVICES. CIVIL ENGINEERING PROGRAMS USE SHOCK TUBES AND HIGH EXPLOSIVES FOR SIMULATION OF NUCLEAR BLAST AND SHOCK. LASER SYSTEMS DEVELOPMENT USES LASER/OPTICS LABORATORIES AND TEST RANGES WITH LARGE, HIGH POWER DEVICES. A TECHNICAL LIBRARY, METALLURGY AND METROLOGY LABORATORIES, 1 CRAY, 2 CDC-730 AND 1 IBM-4341 COMPUTERS WITH REMOTE ACCESS TERMINALS AND MULTI-CHANNEL SENSING/RECORDING AND DATA REDUCTION SUPPORT ALL REQUIRING RDT/E PROGRAMS.

INSTALLATION: WESTERN SPACE AND MISSILE CENTER

VANDENBERG AFB, CA.

CDR. COL LAWRENCE L. GOOCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	2.700	4.507
TOTAL PROCUREMENT	15.942	12.466
TOTAL O&M	127.022	137.476
TOTAL OTHER	11.608	11.823
TOTAL ANNUAL LAB	157.272	166.272
TOTAL INHOUSE	39.716	48.849
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1984)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	343	3	238	105
CIVILIAN	420	2	324	96
TOTAL	763	5	562	201

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
58600	914.972	568.183	607.327	2090.482	300.000	400.000

...MISSION

OPERATE THE WESTERN TEST RANGE TO SUPPORT FIELD TEST AND LAUNCH OPERATIONS FOR A VARIETY OF GOVERNMENT RANGE USERS.

...CURRENT IMPORTANT PROGRAMS

SPACE TRANSPORTATION SYSTEM
 MINUTEMAN III OPERATION TESTING PROGRAM
 PEACEKEEPER MISSILE SYSTEM
 SPACE LAUNCH PROGRAMS USING TITAN, ATLAS AND SCOUT BOOSTERS
 RANGE SUPPORT TO BALLISTIC AND GUIDED MISSILES AND AERONAUTICAL PROGRAMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WSMC CAPABILITIES INCLUDE TEST LAUNCH AND RANGE SUPPORT. TEST LAUNCH INCLUDES: ASSEMBLY AND PRELAUNCH TESTING OF LAUNCH VEHICLE SYSTEMS USING ATLAS, TITAN, AND MM BOOSTERS; PAYLOAD AND VEHICLE INTERGRATION/CHECKOUT AND LAUNCH CONTROL/SAFETY. WESTERN TEST RANGE SUPPORT INCLUDES NEAR AND FAR TERM RANGE INSTRUMENTATION PLANNING AND DATA GATHERING ON BALLISTIC/SPACE/GUIDED MISSILE/AIRCRAFT AND OTHER TESTS AT UPRANGE AND DOWNRANGE LOCATIONS. LAUNCH AZIMUTHS VARY FROM 140 TO 313 DEG. AERO TESTS ARE CONDUCTED IN AN INSTRUMENTED OFFSHORE OPERATING AREA. LAUNCH FACILITIES AND RANGE INSTRUMENTATION CAN BE RECONFIGURED TO MEET PROGRAM REQUIREMENTS.

INSTALLATION: 4950 TEST WING

WPAFB, OH.

CDR. COL J. K. GLENN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	88.340	78.426
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.577	0.803
TOTAL OTHER	22.533	23.341
TOTAL ANNUAL LAB	113.450	102.570
TOTAL INHOUSE	81.596	81.923
TOTAL INHOUSE RDT&E	56.489	57.780
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	927	1	121	806
CIVILIAN	1045	0	161	884
TOTAL	1972	1	282	1690

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
205	0.000	132.249	780.414	912.663	14.260	748.918

...MISSION

DOD MAJ TEST FAC. PERFORMS T&E ON MIL SYS, SUBSYS, AND COMP. OPER & MAIN
ASGN TEST SUP ACFT AND ANCIL EQUIP. MANAGES A CENTRAL FAC FOR MAJ MOD OF
AFSC ACFT. OPER SHOP FAC IN SUP OF CMD ACFT CLASS II MODS AND AFWAL R&D
PROGMS. PROVIDES FLT TST ENGRG. TECH DATA ACQ. AND TECH PHOTO SVCS.

...CURRENT IMPORTANT PROGRAMS

TRIDENT
SUPPORT TO AIR LAUNCHED CRUISE MISSILE (ALCM)
JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM (JOINT STARS)
NAVSTAR GLOBAL POSITIONING SYSTEM (GPS)
SATELLITE COMMUNICATIONS SYSTEM (SATCOM)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST SUPPORT AIRCRAFT (ARIA EC-135) PROVIDE GLOBAL SUPPORT
ALL AFSC MAJOR CLASS II AIRCRAFT MODIFICATIONS
MISSILE LAUNCH/REENTRY TRACKING AND DATA RELAY
1400 SQUARE MILE RESTRICTED TEST AREA IN OHIO
FLIGHT TEST ENGINEERING (AERO-MECH, AVIONICS, ANALYSIS, INSTRUMENTATION)
TEST DATA ACQUISITION/PROCESSING/ANALYSIS
2 OPERATIONAL SQS (FLIGHT CREWS), 3 MAINTENANCE SQS, AND 2 DETACHMENTS.
SPECIALIZED FABRICATION AND MODELING EQUIPMENT
COMPUTER AIDED DESIGN/MANUFACTURING (CAD/CAM) CAPABILITY
TECHNICAL PHOTOGRAPHIC INSTRUMENTATION & PROCESSING
LARGEST PMEL IN AF
ASD LABORATORY MATERIAL CONTROL ACTIVITY

INSTALLATION: 6585TH TEST GROUP

HOLLOMAN AFB, N.M.

CDR. COL LAURENCE J. THOMSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	31.904	34.932
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	7.000	8.300
TOTAL OTHER	5.434	5.671
TOTAL ANNUAL LAB	44.338	48.903
TOTAL INHOUSE	27.462	30.251
TOTAL INHOUSE RDT&E	22.028	24.580
ANNUAL OPERATING COST	0.428	0.416

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	323	0	79	244
CIVILIAN	276	2	95	181
TOTAL	599	2	174	425

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7052	386.000	12.000	165.000	563.000	188.657	55.254

...MISSION

DOD FOCAL POINT FOR FLIGHT, LAB & SLED T&E OF INERTIAL GUIDANCE SYSTEMS. HIGH SPEED TESTING FOR SEAT EJECTION, IMPACT, CORROSION, AND GUIDANCE SYSTEMS. RADAR CROSS SECTION AND ANTENNA MEASUREMENT OF SPACE-VEHICLES, RVS, A/C. A/C SUPPORT OF IN-HOUSE & TRANSIENT REQUIREMENTS.

...CURRENT IMPORTANT PROGRAMS

PEACEKEEPER GUIDANCE SYSTEM AND COMPONENTS TESTING
B-1B AVIONICS TESTING
AMRAAM RADAR FSD FLIGHT TESTS
ADVANCED GUIDANCE TECHNOLOGY TESTING SUPPORTS ABRES
A/C NAVIGATION SYSTEM VERIFICATION TESTING PROJECT 688G

...FUNCTIONS/EQUIPMENT/CAPABILITIES

1-260IN/2-100IN PRECISION CENTRIFUGE. PRECISION GRND/ABN TEST FACILITY. PRECISION REFERENCE/DATA COLLECTION, ENVIRONMENTAL CHAMBERS/INERTIAL NAV VANS. 50799 FT TEST TRACK, 35588 FT 2 RAIL/15200 FT 3 RAIL, 5 BLOCKHOUSES, 9,000 FT RAINFIELD, 2000 FT BALLISTIC RAINFIELD, 30 MHZ TO 95 GHZ RADAR MEASUREMENT OF AMP, PHASE, DOPPLER, GLINT, JET ENGINE MODULATION, MODEL MAKING.

CDR. COL BOBBY R. ADCOCK

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1984 (ACTUAL)	1985 (ACT + EST)
TOTAL RDT&E	12.065	12.300
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.280	3.485
TOTAL ANNUAL LAB	15.345	15.785
TOTAL INHOUSE	15.345	15.785
TOTAL INHOUSE RDT&E	12.065	12.300
ANNUAL OPERATING COST	2.954	3.138

PERSONNEL DATA (END OF FY 1984)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	90	18	46	44
CIVILIAN	149	19	57	92
TOTAL	239	37	103	136

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	26.523	16.047	56.540	99.110	13.415	17.314

...MISSION

THE MISSION OF AFRRRI SHALL BE TO CONDUCT RESEARCH IN THE FIELD OF RADIOBIOLOGY AND RELATED MATTERS ESSENTIAL TO THE OPERATIONAL AND MEDICAL SUPPORT OF THE DEPARTMENT OF DEFENSE AND THE MILITARY SERVICES.

...CURRENT IMPORTANT PROGRAMS

DEFINE PHYSIOLOGICAL/PATHOLOGICAL RESPONSE IN HUMANS TO RADIATION.
ASSESS EFFECTS OF COMBINED INJURIES, MILITARY FORCES/NONCOMBATANTS.
DATA FOR PREDICTION OF COMBAT INEFFECTIVENESS AND CASUALTY PRODUCTION.
TREATMENT METHODS FOR CASUALTIES FROM RADIATION/COMBINED INJURY.
INSTRUCTION TO ARMED SERVICES ON TREATMENT OF NUCLEAR CASUALTIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONS: OPERATE FACILITIES FOR CONDUCTING RADIOBIOLOGY RESEARCH AND DISSEMINATING RESULTS, CONDUCT ADVANCED TRAINING, PROVIDE ANALYSIS CONSULTATION ON BIOEFFECTS OF RADIATION AND PERFORM OTHER SUCH RESEARCH FUNCTIONS AS REQUIRED.

MAJOR EQUIPMENT INCLUDES: PULSE AND STEADY STATE NUCLEAR REACTOR, 200,000-CURIE COBALT-60 IRRADIATOR, ELECTRON LINEAR ACCELERATOR, X-RAY AND THERATRON EXPOSURE CAPABILITY.

SUPPORT SERVICES INCLUDE: MEASUREMENT OF RADIATION FIELDS, PROVISION AND CARE OF LABORATORY ANIMALS, EQUIPMENT DESIGN AND FABRICATION ASSISTANCE, REAL-TIME DATA ACQUISITION SYSTEM, TELEVISION AND FILM DOCUMENTATION OF EXPERIMENTS, PERSONNEL AND ENVIRONMENTAL MONITORING, EDITORIAL ASSISTANCE IN REPORT PREPARATION, AND A LARGE TECHNICAL LIBRARY.

APPENDIX I

DISESTABLISHMENT, ESTABLISHMENT OR CHANGES IN ORGANIZATION OR NAME*

DEPARTMENT OF THE ARMY

Airborne Board Fort Bragg, NC	Disestablished (Name Change)
Airborne & Special Operations Test Board Fort Bragg, NC	Established
Air Defense Artillery Board Fort Bliss, TX	Established
Air Defense Board Fort Bliss, TX	Disestablished (Name Change)
Combat Systems Test Activity Aberdeen Proving Ground, MD	Established
Materiel Testing Directorate Aberdeen Proving Ground, MD	Disestablished (Name Change)

DEPARTMENT OF THE NAVY

NONE

DEPARTMENT OF THE AIR FORCE

NONE

* Changes since publication of Department of Defense In-house RDTE Activities,
30 October 1983.

APPENDIX II

DEFINITIONS

1. IN-HOUSE RDTE ACTIVITIES--Those organizational entities engaged in performing work in any or all of the categories of research, development, test, and evaluation. The RDTE effort, however, should represent a minimum of 25 percent of the total effort of each entity reporting in order to be considered as an RDTE activity.

2. PROFESSIONALS--Full-time government scientific and engineering personnel actively engaged in RDTE activities. In the case of civilians this will include all those holding positions that fall into the following categories under the Civil Service Occupational Groups and Series of Classes, General Schedule:

101 Social Science	660 Pharmacist
150 Geography	662 Optometrist
180 Psychology	665 Speech Pathology and Audiology
184 Sociology	668 Podiatrist
190 General Anthropology	680 Dental Officer
193 Archeology	690 Industrial Hygiene
401 Biology	695 Food and Drug Officer
403 Microbiology	696 Consumer Safety
405 Pharmacology	701 Veterinary Medical Science
408 Ecology	801 General Engineering
410 Zoology	803 Safety Engineering
413 Physiology	804 Fire Prevention Engineering
414 Entomology	806 Materials Engineering
430 Botany	807 Landscape Architecture
434 Plant Pathology	808 Architecture
435 Plant Physiology	810 Civil Engineering
436 Plant Protection and Quarantine	819 Sanitary Engineering
437 Horticulture	830 Mechanical Engineering
440 Genetics	840 Nuclear Engineering
454 Range Conservation	850 Electrical Engineering
457 Soil Conservation	855 Electronic Engineering
460 Forestry	858 Biomedical Engineering
470 Soil Science	861 Aeronautics Engineering
471 Agronomy	871 Naval Architecture
480 General Fish & Wildlife	880 Mining Engineering
482 Fishery Biology	881 Petroleum Engineer
486 Wildlife Biology	890 Agriculture Engineering
487 Animal Science	892 Ceramic Engineering
493 Home Economics	893 Chemical Engineering
601 General Health	894 Welding Engineering
602 Medical Officer	896 Industrial Engineering
	1221 Patent Adviser
	1222 Patent Attorney
	1223 Patent Classifying
	1224 Patent Examining
	1225 Patent Interference Examining

1226 Design Patent Examining
 1301 General Physical Science
 1306 Health Physics
 1310 Physics
 1313 Geophysics
 1315 Hydrology
 1320 Chemistry
 1321 Metallurgy
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1370 Cartography
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 1380 Forest Products Technology
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 1510 Actuary
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 1520 Mathematics
 1529 Mathematical Statistician
 1530 Statistician
 1540 Cryptography
 1550 Computer Sciences

Military professionals, both officer and enlisted, actively engaged in RDTE activities could be identified with the functions described in the above referenced civilian job series. Lawyers, accountants, chaplains, social workers, and educators should be excluded.

3. TECHNICIANS--Generally nonprofessionals working on an RDTE project or program in support of a professional. In the case of civilians, it will include, but will not necessarily be limited to, those holding positions that fall into the following categories of the Civil Service Occupational Groups and Series of Classes, General Schedule:

102 Social Science Technician
 181 Psychological Technician
 404 Biological Technician
 421 Plant Protection Technician
 455 Range Technician
 458 Soil Conservation Technician
 462 Forestry Technician
 603 Physician Assistant
 621 Nurse Assistant
 622 Medical Supply Aid
 625 Autopsy Attendant
 636 Rehabilitation Therapy Asst
 642 Nuclear Medicine Technician
 644 Medical Technologist
 645 Medical Technician
 646 Pathology Technician
 647 Medical Radiology Technician
 648 Therapeutic Radiological Technologist
 649 Medical Machine Technician
 650 Medical Technical Assistant
 661 Pharmacy Technician
 664 Restoration Technician
 667 Orthotist and Prosthetist
 669 Medical Record Librarian

681 Dental Assistant
 682 Dental Hygienist
 683 Dental Laboratory Technician
 684 Public Health Dental Hygienist
 685 Public Health Program Specialist
 688 Sanitarian
 698 Environmental Health Technician
 699 Health Technician
 704 Animal Health Technician
 802 Engineering Technician
 817 Surveying Technician
 818 Engineering Drafting
 856 Electronics Technician
 895 Industrial Engineering Technician
 1202 Patent Technician
 1311 Physical Science Technician
 1316 Hydrologic Technician
 1341 Meteorological Technician
 1371 Cartographic Aid
 1374 Geodetic Technician
 1521 Mathematics Technician
 1531 Statistical Clerical & Administrative
 1541 Cryptanalysis

Discretion will have to be exercised by each RDTE activity in determining the number of military technicians. Generally, they should follow the guidelines established in defining civilian technicians and can be identified in DOD 1312.1-E.

4. REAL PROPERTY COST--Each reporting activity will be responsible for determining and reporting the cost of real property. This cost should be established in accordance with the guidelines and definitions in DOD Instruction 4165.14. This should also include the cost of installed equipment.

5. EQUIPMENT COST--Each reporting activity will be responsible for determining and reporting the cost of personal property. This cost should be established in accordance with the guidelines and definitions in DOD Instruction 4165.14. This should also include the cost of installed equipment.

6. SPACE--The data to be furnished should include only walled and roofed building space. It should not include such things as parking lots, open storage areas, lean-tos, etc. The source of data may be the annual report submitted in compliance with the requirements of DOD Instruction 4165.14.

7. IN-HOUSE OBLIGATIONS--Obligations reported under this category are for activities performed, or to be performed, by the organizational entity. Their work is carried on directly by their own personnel. Particular care should be taken to include under in-house performance the cost of supplies and equipment essentially of an off-the-shelf nature that are procured for use in in-house research and development, plus such things as travel, publications, and other types of services in support of in-house functions and M.P.A. Excluded from the in-house total are expenses for planning and administering programs by DOD personnel of contracts and grants for out-of-house work and M.C.A.

8. OUT-OF-HOUSE OBLIGATIONS--Obligations reported under this category are for activities performed, or to be performed, by other than the organizational entity. Out-of-house performers may include other departmental or DOD organizational entities, industrial firms, educational institutions, not-for-profit institutions, and private individuals. Included as out-of-house work are all expenses paid the out-of-house performers, as well as the expenses incurred in planning and administering these programs by personnel of the organizational entity. This would also include travel and other supporting services.

9. ANNUAL OPERATING COST--This should generally reflect the overhead cost of operating the laboratory or facility. It should include such things as costs of utilities, rents, janitorial services, guard and fire protection, support services such as supply personnel, printing, maintenance of buildings and grounds, etc. It should not include the salaries of direct labor personnel such as scientists, engineers, technicians, draftsmen, machinists, etc.

APPENDIX III

Selected Standard Abbreviations and Acronyms

AAM -- air-to-air missile	GCA -- ground-controlled approach
AAW -- anti-air warfare	
ADPE -- automatic data-processing equipment	HF -- high-frequency
AEDC -- Arnold Engineering Development Center	IFF -- identification, friend or foe
AFSC -- Air Force Systems Command	IR -- infrared
AFWET -- Air Force weapons effectiveness testing	MPT -- military potential test
AMC -- US Army Materiel Command	NAF -- Naval Air Facility
APG -- Aberdeen Proving Ground	NASA -- National Aeronautics and Space Administration
ARPA -- Advanced Research Projects Agency	
ASW -- antisubmarine warfare	NASC -- Naval Air Systems Command
AUS -- Army United States	NAVORD -- Naval Ordnance Systems Command
	NAVSHIP -- Naval Ship Systems Command
	NEMP -- nuclear electromagnetic propagation
BIS -- Board of Inspection and Survey	PI -- product improvement
BW -- biological warfare	POL -- petroleum oil, lubricants
CBR -- chemical, biological	QA -- quality assurance
CE -- Chief of Engineers, Army	radiological
	QMDO -- qualitative materiel development objective
	RDTE -- Research, development, test and evaluation
CG -- commanding general	
CNO -- Chief of Naval Operations	RF -- radio frequency
COMEL -- communications electronics	RV -- reentry vehicle
DA -- Department of the Army	SATS -- short airfield tactical support
	SDR -- small development requirement
DASA -- Defense Atomic Support Agency	SI -- ship installation
DOD -- Department of Defense	SP -- self-propelled
DZ -- drop zone	ST -- service test
ECM -- electronic countermeasures	T&E -- test and evaluation
ED -- engineering development	
EDT -- engineering development & test	UDT -- underwater demolition team
EEG -- electroencephalogram	ULMS -- Undersea Long-Range Missile System
EKG -- electrocardiogram	USATECOM -- US Army Test and Evaluation Command
ELINT -- electronic intelligence	UTTAS -- utility tactical transport aircraft system
EMP -- electromagnetic propagation	USW -- undersea warfare
EMW -- electromagnetic warfare	UV -- ultraviolet
EODC -- Explosive Ordnance Disposal Center	
ET -- engineering artillery	V/STOL -- vertical/short takeoff and landing
FA -- field artillery	
FBM -- fleet ballistic missile	

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